

Educational Supplement

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HMI calls for effort to raise low attainers' performance

by Sue Surkes

The Lower Attaining Pupils' Programme has improved attitudes to school but must now concentrate on boosting performance, says a report to be published by Her Majesty's Inspectors next week.

Teachers must assess the needs of individual pupils and must ensure that their curriculum is challenging and broad-based, it adds.

The survey, made mainly in 1984-85 when projects were only just starting, found much to praise but stressed that standards varied in practically every aspect.

The programme, aimed at fourth and fifth-year pupils for whom the pre-GCSE examinations system was not designed, only began in 1983 and four of the 13 local authorities spent the first year in planning and in-service training.

In general, the survey says schools failed to assess the needs of individuals and concentrated too much on the response of the group as a whole. Many schools dwell on the basic skills of literacy and numeracy to the

detriments of subjects such as music, drama and art. In practical work, pupils' abilities were rarely stretched, and although some schools tried to allow pupils to discuss their own curriculum, the opportunity was usually limited.

The inspectors found that pupils' confidence had often improved. Many became more articulate and socially aware through more contact with adults and the community.

But their generally poor standards in English and mathematics were "all the more disappointing" in view of the stress on basic skills. "Sustained effort is clearly needed to raise project pupils' attainment in many areas of the curriculum."

The inspectors echoed sentiments expressed at the British Educational Research Association's annual conference last week when they said progress made by lower attaining pupils could depend on improvements to their own education in earlier years and to the education of all secondary pupils.

BERA conference, page 14



Nature at their fingertips... Rachel Walsh and Marcus Fuller, aged seven, learn about some of the joys of the countryside in their school's new butterfly house built on the edge of a tarmac playground at Hawthorn primary school in the Northamptonshire town of Kettering.



PAUL JOHNSON

The play's the thing

The equation, knowledge equals loss of revolutionary fervour, has not fundamentally changed

of this more general detestation: what he objects to is that their "parchments" are "scribbled over" and so "undo a man".

Cade promises collective ownership of the realm but his witch-hunt is directed against signs of learning. Hauled before him is the Clerk of Chatham, whose crime is that he "can write and read and cast account". He has been caught "setting of boys' copies". He admits to literacy whereupon the mob shouts "He hath confessed" and Cade orders: "Hang him with his pen and inkhorn about his neck".

The point is made still more fiercely in the case of the captured Lord Say, who is not only literate but (says Cade) "can speak French". He uses grammar: "I am proved to thy face that thou hast men about thee that usually talk of a noun and a verb". He is accused: "thou hast caused printing to be used" and "built a paper-mill". Worst of all: "Thou hast most traitorously corrupted the youth of the realm in erecting a grammar school." So Cade commands: "Go, take him away, I say, and strike off his head."

What is notable in this scene is Shakespeare's perception that revolutionary leaders regard upward mobility, promoted by education, as a form of corruption. It is the most obvious way in which the natural

components of a revolutionary mob escape from the control of its leader. Cade saw this in his crude, brutal fashion. Modern radicals are more sophisticated and subtle, but the equation, knowledge equals loss of revolutionary fervour, has not fundamentally changed.

Naturally, the modern proponent of revolutionary change insists that he favours universal education. It is part of his propaganda stock-in-trade. Indeed, he is most likely involved in the education process himself. For instance, the present-day Labour Party, as represented by its parliamentary candidates, is no longer a working man's party at all. By far the largest occupational group among them is composed of teachers, lecturers and those engaged in educational administration. If Labour were to get an overall majority at the next election, this group would be 150 strong, forming the core of the PLP.

But none of this means the modern radical favours learning as a step towards popular, individual liberation. Quite the contrary. To him, education is a political instrument and any system which he does not control is a threat to his own class constituency.

There is a parallel here with housing. The Left has always opposed the sale of council

houses because it breaks up reliable voting blocks. It is even more vehemently opposed to all schemes for assisted places in fee-paying schools, however much they may benefit individual boys and girls from poor families, because they represent escape-routes from the proletariat. Neither a house-owner nor an educated person is likely to join a mob, as Cade grasped.

The process of using education to act as a brake on upward mobility is seen most clearly in the policies adopted by education committees in the big inner-cities, now often dominated by the hard Left.

High priority is given to political indoctrination of one kind or another, masquerading as sex and race-equality programmes. The acquisition of standard skills making upward ascent possible gets low priority. Indeed, in the case of immigrant communities, the effect of the curriculum is to prevent children acquiring proficiency in English, essential to escape from a radical-controlled setting, and to promote continuing imprisonment in the immigrant culture. The policies are propounded with a shameless combination of humbug and cynicism, recalling Cade's brazen effrontery.

It is striking that the grammar school after four centuries, should still be the symbol of the radical attempt to prevent working-class children from escaping their class role. Shakespeare would have been angered but not at all surprised to hear of the latest destructive scheme, to merge his own grammar school at Stratford into a monolithic comprehensive.

NEXT WEEK

Acas and after
Peter Smith of AMMA analyses
progress so far
TES reporters send despatches from the
classrooms
Shop window
Selling the adult education service
through the high street newsagent
EXTRA: Science

NOTICEBOARD

No 270 CROSSWORD by Rufus

CONFERENCES...

October 15
"Review of vocational qualifications: the wider implications for education and training" at the Beaches Management Centre, Birmingham, organized by the Training Network. Speakers include Jack Mansell and Philip Wells. Fee £35. Details from The Training Network, 107 Memorial Road, Harbham, Bristol BS15 3LA.

October 18
Association for Behavioural Approaches to the Maritime Conference at the Maritime Teachers' Centre, Bristol Road, Birmingham, from 10am to 5pm. Speakers include Professor Ted Glynn, University of Otago, New Zealand, on "Contexts for independent learning" and Dr Roger Burdell, who will give the presidential address. Fee £10. Details from Susan Colmar, 61 Sully Wick Drive, Sully Park, Birmingham B29 2JQ, or Neil Hall, Child Advisory and Psychological Services, 74 Balden Road, Harborne, Birmingham B32 2EW.

November 8
Third national paired reading conference in Dewbury, West Yorkshire. There will be a video and lecture presentation to instruct teachers about the technique and a variety of workshops. The keynote address on Paired Reading in Dewbury - and beyond will be given by Andy Miller, Child Development Research Unit, University of Nottingham. Details from Keith Topping, Middlesbrough City Council, Oldgate House, 2 Oldgate, Huddersfield HD1 5BW.

November 12
Languages in the market place. National Association of Teachers in Primary and Higher Education

Modern Languages Section annual conference at Regent's College, Regent's Park, London NW1. Speakers: Mr George Walden, Mr Brian Parry, and Mr Peter Alley. Fee £12. Details from Mrs Kate Seager (Modern Languages Conference Secretary), Crawley College of Technology, Crawley, West Sussex.

COURSES...

October 15-17
A workshop on transition to adulthood for those with severe physical impairment, organized by the Spastics Society at Castle Priory College. Workshop leader: David Hutchinson of the North Nottinghamshire College of Further Education. Details from Castle Priory College, Thames Street, Wellingford, Oxfordshire OX10 0HE.

October 19-22
Further Education Staff College course to analyse the relationship between staff evaluation, staff development and in-service training for academic and support staff, so that colleges and LEAs can use their resources in these areas more effectively. Applications are invited from college principals and registrars, i.e. officers and personnel officers in large colleges or local authorities. Fee £80. Details from the Registrar, FESC, Bognor, Bristol BS18 6RG.

November 24-28
Developing curriculum provision: a workshop for heads of department and vice-principals at the Further Education Staff College, Bognor. The course will examine curriculum management issues and consider course evaluation, team-building and leadership skills, and the allocation of resources. Fee £150.

Details from the Registrar and Clerk to the Governors, The Further Education Staff College, Bognor, Bristol BS18 6RG.

Multicultural Education
Sunderland Polytechnic is running short courses on multicultural education. Details from Mr L. Willis, Department of Teaching Studies, Sunderland Polytechnic.

EVENTS...

Chess tournament
The entry date for the 1986-87 British Schools Chess Tournament, sponsored by The Times and organized in association with the British Chess Federation, has been extended to September 13. Entries should be sent to The Times Network Systems Ltd, PO Box 7, 200 Gray's Inn Road, London WC1B 3DZ.

Archaeology in Britain
The following teachers' days have been arranged in conjunction with the British Museum's Archaeology in Britain exhibition. Details from the British Museum Education Service, Great Russell Street, London WC1B 3DG.

September 13
Avebury Study Centre, Wiltshire. Seconded teachers describe their work at Avebury; study groups at Avebury, Silbury and West Kennel; introduction to English Heritage Education and the Archaeology in Britain exhibition.

September 27
Glenis Graves, near Welling, Norfolk. Introduction to English Heritage Education and the Archaeology in Britain exhibition. Tour of the flint mines, flint knapping and spear throwing demonstration.

to English Heritage Education and the Archaeology in Britain exhibition, teaching about prehistory, Iron Age, Roman Britain and medieval periods. The proposed GCSE in archaeology.

October 18
Study day at the Department of Ancient History and Archaeology, University of Birmingham, on English Heritage and the Archaeology in Britain exhibition. Archaeology in West Midlands schools, and a display of teaching materials.

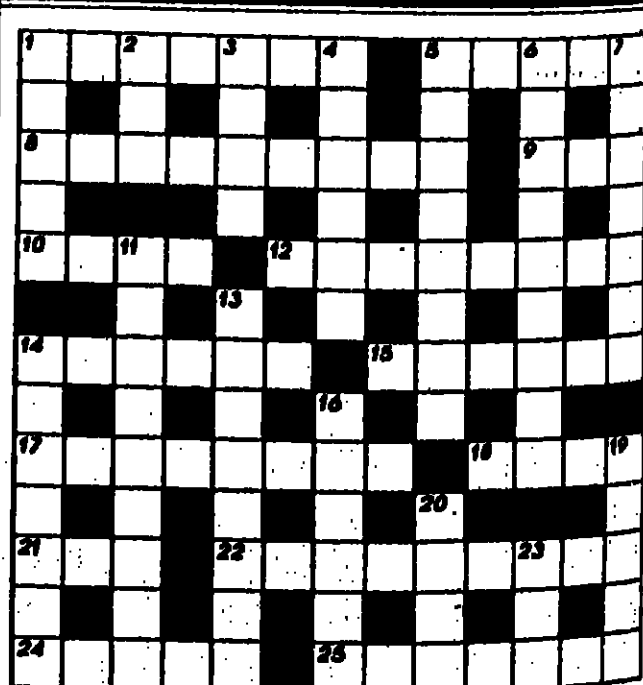
Children's trails, aimed at 8 to 12-year-olds, a teachers' pack and video introducing the exhibition to schools are also available from the education department.

Tower of London
The Tower of London education centre offers audio-visual shows and lessons on the Tower as a castle, Tower prisoners, arms and armour, the Crown Jewels, the Normans, Tudors, the English Civil War, women in castle life, and the armour and weapons of Islam, India and Japan, for junior and lower secondary classes. GCSE and 13-16 programmes include evidence-based learning using the buildings and collections at the Tower.

October 29
Teachers' course on "Castles and Castle Life".

November 11, 13
Document-based study day for 2nd year teachers on Tudor rebellions.

December 2, 4
Study day for 1st year sixth-formers, introducing visual and literary evidence for images of Tudor monarchy.

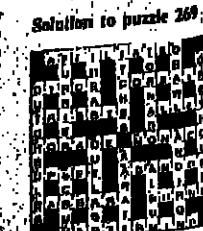


Across

- 1 Feeling swell? Yes and no (7)
- 2 Drinking bender (5)
- 3 It's bound to mean a drop in wages for a brief period (5, 4)
- 4 Pop to and fro (3)
- 5 He flouted a company using the double entry system (4)
- 6 It even involved an Italian (8)
- 7 A favour of suitable financial advantage (6)
- 8 Tissue differently it's said (6)
- 9 Unauthorised demand for suspension (2, 3)
- 10 It turns on an opponent (4)
- 11 Close result (3)
- 12 Those interested in film can see his development (9)
- 13 Strips being about to get some rest (5)
- 14 Make out a new plan for Marxist fixation (7)

Down

- 1 A girl superstitious of sex-appeal (5)
- 2 Bit of publicity that leads to nothing but trouble (3)
- 3 One gets no thanks for the small item (4)
- 4 Initially a king, possibly rose to an emperor (6)
- 5 Complicated parts assembled by steel ment (8)
- 6 China has a poor start to the game (9)
- 7 We dried, perished and wasted our (7)
- 8 It's outstanding (6)
- 9 Patching battered headgear (8)
- 10 Friend hits mistakes (7)
- 11 Flag for CND supporter? (4)
- 12 It has a small part to a big pleasure (5)
- 13 Pole getting into corrupt company (4)
- 14 Meal in the late afternoon (3)



Warning over faulty electrics

by Carolyn O'Grady

A lot of electrical equipment in schools does not comply with government health and safety regulations and some of it is dangerous.

These findings emerge following the establishment of a new computerized safety inspection service by an independent body, the Educational Foundation for Visual Aids.

Mr Bob Nagle, of the foundation, said that about half of the audio-visual equipment it was servicing for the first time did not comply with regulations and about 5 per cent of this equipment was potentially lethal.

The foundation has maintenance contracts with about one in five I.E.A.s. It can only work at equipment it is asked to look at under the terms of the contract and has few powers to enforce

the use of safe equipment.

The most common faults, according to Mr Nagle, were exposed mains conductors, broken plugs and plugs which can be easily dismantled.

A lot of older equipment with power of up to 240 volts had uninsulated pins. Guidance notes issued to help schools comply with the 1974 Health and Safety Act, stipulate that children must not be able to come into contact with more than 25 volts.

The chief culprit in this respect, was stage lighting equipment.

Mr Ralph Powell, a member of the EFVA council, said that the chief cause of faults was lack of resources. The equipment was often very old and there was not enough money to maintain it.

'No funds' for language plan

by Diane Spencer

Sheffield's plan to boost bilingual teaching has been hit by a Home Office ruling on Section 11 funding, a council official claimed this week.

The city planned to create a new community languages unit, with seven teachers who would provide schools and colleges with resources for students who wanted to learn Urdu and Bengali.

But the scheme is in jeopardy because the Home Office turned down an application for funds, Mr Chris Searle, the city's multicultural adviser, said.

Under Section 11 of the 1966 Local Government Act, the Home Office can provide 75 per cent towards the costs of staff employed to help ethnic minorities - the last open-ended source of funds from central to local government.

The Home Office has been re-evaluating the criteria for Section 11 grants over the past two years.

Baker to stand firm over salaries' bill

by James Melkile

Mr Kenneth Baker will repeat the Government's reluctance to sign a blank cheque for the teachers when he meets the employers' leader Mr John Pearman today.

Mr Pearman is seeking a commitment that the Government will meet its share of the bill for the pay and conditions package sketched out at Coventry.

The Education Secretary is unlikely to give such guarantees until he knows how much the new conditions still being negotiated will add to the proposed salary bill of £2.9 billion over five years.

The Government has so far adopted a wait-and-see attitude towards the negotiations, but Mr Gilles Radice, Labour's education spokesman, and teachers' organizations are stepping up pressure for a clear statement of intent.

The two headteachers' associations

have still to ratify the Heads of Agreement signed by representatives at Coventry in July. They have also refused to sign the interim cover agreement, which, according to the National Union of Teachers, means heads and deputies should do an equitable share.

The National Association of Schoolmasters/Union of Women Teachers has refused to sign either deal. Selective strikes started in Solihull yesterday where 600 NAS/UNT members are fighting their authority's refusal to pay back money docked for no cover action in the pay dispute.

The NUT called off action at a school in Ealing after claiming a breakthrough on class sizes this week when the authority provided extra staff for a first school where nine pupils had been excluded.

Back to work, pages 6, 7 and 8

THIS WEEK

COMMENT
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ACAS: Whose turn next? page 4



Brunt head under fire page 22



Formula for managing schools? page 24



Self-defeating culture: Anna Saffer page 28

EXTRA: Science pages 43-54

Muddle, toil and trouble

The main thrust of Sir Keith Joseph's original Education Bill was intended to sort out school governors, their powers and persons, into something closer to the heart of a rational Conservative Secretary of State.

From the beginning critics claimed that the legislation as drafted would do little to clarify the law on delicate issues. The Bill has since been amended to carry an unwieldy load of extraneous matters but events are already conspiring to demonstrate that the new Act due in October will fail in its main purpose.

This week there seems to be (page 12) a rash of hire-and-fire cases, where headteachers, local authority employers and school governing bodies sit uneasily on the three sides of an educational Bermuda Triangle.

It is no secret that the Government wanted to change the composition of governing bodies to give parent governors the muscle to challenge left-wing local authorities and make it more difficult for them to pursue doctrinal policies which any sensible parent or headteacher might be expected to oppose.

Non-placesmen governors have been strengthened in recent years but the result has not always been what either the Education Secretary or the National Association of Governors and Managers might have expected.

It is true that as the new governors (and especially the parents) have gained experience and courage to raise their voices, governing bodies have sometimes chosen to support their own headteachers against an apparently capricious left-wing local authority, just as Sir Keith Joseph had hoped they would. There is such a case pursuing its way in left-wing Brent now, where a head is accused by a junior official of making an allegedly racist remark. The governors are supporting the head as they did in Manchester over the long-drawn-out graffiti episode earlier this year.

In deepest Dorset, however, where a governing body is backing its school's acting head against a local authority determined not to even put him on the

short-list for the head's job, solid local worthies are finding themselves in revolt against equally true blue local politicians who have called up the big guns of the Education Secretary.

Meanwhile, in leafy Surrey, the line-up and plot is different again, with parents and governors, backed by the local Tory MP, taking precipitate action to try to rid themselves of a newish head who the (Conservative) local education authority had, by all accounts, put in to bring a chalk-and-talk primary school into the post-Plowden era.

Each of these cases is different. In each of them it is extremely difficult without detailed knowledge of local situations and personalities to sort out the rights and wrongs.

In Brent, as in Manchester before it, union action has now been deployed as a blunt weapon to force a solution which would have been better resolved diplomatically at an earlier stage.

Mr Kenneth Baker has now warned Mr Roy Mauger, who chairs the governors of the Dorset school, that an order of *mandamus* could be issued requiring the governors to perform their statutory duty to appoint a new head (from the short-list imposed by the I.e.a.'s selection committee). If he goes ahead and uses his legal blunderbuss he may have to be prepared to use it more often in future as the lawyers gather to feast on the consequences. It won't make it easier to get good, independent-minded governors in future.

The choice here seems to be between acting as a rubber stamp or risking contempt of court, if opposition is taken to its final, ludicrous extreme.

Mr Mauger can be forgiven for his astonishment at this treatment from a Government which had declared its intention of strengthening the role of parents and governors.

Sadly, of course, the Education Bill has got the worst of two worlds by raising the expectations of the new breed of governors without doing more to clarify

powers. As the Education Bill stands, the Dorset case is the only one at issue to which it would be relevant. Governors and councillors would be able to nominate two candidates each for the head's appointment, but the only method laid down for breaking any deadlock is to go back to the beginning and start again. A sure formula for months of uncertainty.

But if the expected legislation would fail to do the job it was primarily designed to do, what hope is there for the children and headteachers caught up in the growing number of cases where governors are testing their new-found powers? The present epidemic is not likely to go away. In fact, it sometimes looks as if the first thing parent governors do when they get into power is to seek advice on how to get rid of the head.

They could occasionally be right, of course, although any governor should think long and hard about the long-drawn-out damage to school and pupils, as well as to the head-in-the-middle, if they go into the attack. All the same, they provide a salutary reminder for heads themselves that parents are now a part of the educational partnership and have the right to be kept informed, and taken along with, any innovations in the curriculum and management of the school.

The parallel lesson for the parents and governors on the third side of the triangle is that they have to earn the respect of the professionals if they don't want to be pushed around. They have to inform themselves about the life of the school and the mainstream of educational developments, lifting their hearts and minds beyond their own children, and the way things were done when they were at school.

If we don't see more mutual respect and goodwill - which in the end promises far more than legislation to clear up difficulties - the sorry stories now being enacted in Brent, Dorset and Sutton will be forerunners of many more.

Second opinion

Why heads held out for cover rules

Recent TES editorial comments suggest a misunderstanding of the position of the Secondary Heads Association in two important areas. First, we are taken to task because we signed the Heads of Agreement at Coventry when some parts of it were distasteful to us, and then called stubborn for abstaining from the interim agreement on cover.

In the first case, we were dealing with a package and it was clear from the beginning - and long before the Coventry meeting - that it would not be possible to pick out the parts we liked and reject the rest. It became a matter of judgement to decide when we had reached the best set of compromises we were likely to get and so many issues still to be resolved it would have been irresponsible to have opted out at that stage.

Of course secondary heads and deputies have serious reservations about a number of the elements of the Coventry agreement, and some of these have already been aired in the columns of *The TES*. We suspect the experience of the new structures of operation will lead fairly quickly to some modifications.

In the second case, we were dealing with a specific and short term issue that of cover. As *The TES* has observed, this is a vexed and highly sensitive subject. For many months heads and deputies received practical sympathy from many quarters for keeping schools operating without directly undermining the actions of the other unions or endangering the safety of their pupils.

The question of cover was one of the most difficult of all to manage as we struggled to contend with the almost infinite variations in union action, the regulations of I.e.a.s, the shortage of supply teachers and the problems of transport. The man hours expended on this issue alone over the past 18 months are incalculable.

The least we might expect, therefore, even from an interim agreement, is some statement of the rules of how the game is to be played from now on, with clear indications of what the various unions will and will not advise or instruct their members to do and firm commitments by the I.e.a.s to deal with the rest.

What we have instead is what *The TES* described as a fudge. We believe that it will lead to confusion in many parts of the country and may place heads once again in the invidious position of sending pupils home when the readiness of teachers to provide cover falls short of the local authority's expectations.

We hope we are proved wrong, and meanwhile SHA members will continue to do all they can to keep their schools running normally. We shall, of course, do nothing to obstruct the operation of the fudged agreement, which we did not reject but simply abstained from signing because it did not meet our needs for efficient and effective management of schools.

John Sutton

John Sutton is Salaries and Conditions of Service Officer, Secondary Heads Association.

no comment

"The aim of curriculum harmonization within these consortia would be to stimulate and facilitate harmonization of curriculum for pupil transfer within multi-agency areas."

IN BRIEF

AS support

Testimonials of support for the new Advanced Supplementary Level have come from university and polytechnic bodies, companies and the Civil Service Commission, according to a guide to the new exam published by the DES.

The guide tries to allay fears that the qualification, due to be examined for the first time in 1989, will not be as well-received as A levels. It says that students taking AS levels, which require half the teaching and private study time of an A level, may have a better chance of getting a job or a place on a degree course.

Launching the guide, Mr Kenneth Baker said: "This new examination has considerable support from higher education, employers and the professional bodies. I hope that schools and colleges will mount a selection of AS level courses and that many A level students will take a mix of A and AS levels."

Students cleared

Seven university students, punished for taking part in rowdy demonstrations over a history professor's lectures, have been cleared on appeal as a result of a "procedural error" during disciplinary proceedings. Lectures at Bristol University by Professor John Vincent, a political columnist with the *Sun* newspaper, were severely disrupted last term with protestors complaining over alleged sexist and racist comments in his column.

Jobs charter

A young citizens' charter to be announced at the Institute of Careers Officers conference at Cardiff this weekend proclaims the right of every youngster to a job as soon as he or she is ready for employment.

Caning case

A headteacher alleged to have caned a 13-year-old boy for not doing well enough in exams is to appear at Barnet Magistrates Court on Monday. Police have successfully applied for a summons against Mr John Pearson, head of Friern Barnet Grammar School, an independent school in North London, of causing actual bodily harm to Barry Towner in July.

Court threat

Headteachers in Manchester are considering legal action if the city council carries out a threat to dock pay for refusal to implement a midday supervision scheme. The authority says the heads are in breach of contract and has reserved the right to deduct cash. It is employing 700 ancillary workers for the supervision but is not involving teachers or heads.

Seminar snub

Officers and members of the Inner London Education Authority are gathering at Somerville College, Oxford, this weekend for a "strategy seminar". Conservative and Liberal councillors have refused to attend the seminar which will discuss the quality of education in London schools, ILBA's equal opportunity policy and the organization of 16-19 education.

Library awards

Hamstead School, the Commonwealth Institute, and the Polytechnic of the South Bank in London were among this year's winners of the Library Association's public relations awards presented in Harrogate yesterday.

Nurseries opened

Leeds City Council has opened three nurseries at the start of the school term which will provide 78 full-time places for under-fives. Two other nurseries have taken in extra staff and equipment to provide another 12 places each.

NEWS

Minister spurns isolated HE boost

by David Jobbins

An isolated expansion of higher education would mean places continuing to be snapped up largely by the privately-educated middle classes, according to Mr George Walden, under-secretary of state for higher education.

Ministers are conscious of the growing numbers opting for independent schools whose pupils go on to dominate many university courses. Rounding on the Government's critics, who are pressing for wider access to higher education, Mr Walden claimed there was "almost a conspira-

cy of misinformation" over achievements such as the increase of 80,000 students over the figure for 1979 with expansion allowing for more places on arts as well as science and technology courses.

He told the Federation of Conservative Students' conference in Leicester: "The more clearly it dawns on our opponents that the expansion of access to higher education is one of the Government's major achievements, the more they will seek to obscure it with cries of 'crisis'."

But it was not possible to talk of putting more people into higher education without asking where they were to come from. This was why the most important task still facing the Government was to raise school standards.

"This Government does not want to expand access for the better off or the privately educated alone," he said. "We can claim without embarrassment or objection that British higher education is among the best in the world. It would be a rash man who said the same for some of our schools."

It was theoretically possible to have first-rate higher education and second-rate schools, but this meant reconciliation to the permanent exclusion from Britain's best universities, polytechnics and colleges of vast sections of the population, not in middle and upper income groups, whose schools were not what they should be. Up to 90 per cent of students on some courses at Oxford, Cambridge and other leading universities are from privately-educated backgrounds.

THES

Child care left to volunteers

Child care in Britain is sparse, uncoordinated and mainly voluntary, says a report published by the National Council for Voluntary Organizations.

The Government has given low priority to under-fives, and local authorities are not required by law to provide facilities for pre-school children, except those at risk.

The situation is now so serious that in some areas parents have to rely entirely on voluntary organizations.

The report is based on interviews with 26 national groups concerned with child care. It notes that in Britain, the state provides child care for only 20 per cent of three-year-olds, compared with 88 per cent in France.

As voluntary associations tend to depend on short-term funding it is hard for them to develop professional and efficient practices, the report says.

Voluntary Organizations and Child-care by Christine Hogg, NCVO, 26 Bedford Square, London WC1E 1SL.

TV first

Matthew Boulton technical college, Birmingham, is the first in the West Midlands to run courses on satellite television technology. The college has installed a satellite receiving system with an 8ft diameter dish antenna erected on the roof of one of its buildings.



Certificate launch: Kenneth Baker presents the new CPVE to one of the 50 youngsters who came to the special award-giving ceremony aboard a launch on the river Thames this week.

Chief named for College of the Air

by Mark Jackson

The new television-based mass distance learning programme to train adults is to be called the Open College of the Air, it was announced this week.

It will be further education's equivalent of the Open University, according to Lord Young, the Employment Secretary.

Lord Young has chosen Mr Michael Green, chairman of Carlton Communications, one of Britain's fastest growing video companies, to head the new institution.

Mr Green, aged 38, who is related to Lord Young by marriage, has been set the task of getting the first courses ready for broadcasting in 12 months' time.

While Mr Green regards this deadline as "ambitious", he says that it will

be met. "We will certainly have some courses ready, although it will take us longer to build up to the full range," he said.

Mr Green admitted that he knew little about education and that all his skills were on the delivery side. But he suggested that this might be an advantage since it encouraged objectivity.

"In the past few weeks I have learned a lot about educationists and I very much look forward to working with them," he said. He has set about recruiting a small team of professionals to plan and organize the arrangements and must now ensure that funds will cover costs.

He plans to get private industry to contribute towards the cost of producing the course materials which will be broadcast free by television and radio companies. Most of the broadcasts will be on Channel 4.

Mr Green said that he already had "got a feel" of the contribution the Treasury was prepared to make and that he thought the business world would be enthusiastic. Companies would be invited to sponsor broadcasts and to pay for associated advertising.

Whether broadcasting companies would also pay for the production of some courses was a matter under discussion.

Lord Young said he hoped the Open College would offer teachers ways to update their skills, and he thought such organizations as the Law Society would be keen to use it for similar purposes.

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PLATFORM



Peter Smith says that the unions will have to get their act together to build on the real progress made at Coventry.

Whose turn next?

Way back in January, the National Union of Teachers declined to sign the Acas Memorandum of Agreement. It not merely dissociated itself from the truce which marked the end of the 1985 salary dispute and the opening of talks for 1986 and beyond, it energetically denounced those party to it.

By July the NUT was back at the negotiating table. It was now the turn of the National Association of Schoolmasters/Union of Women Teachers to distance itself from the majority union position. Refusing to endorse the Coventry Heads of Agreement document, a product of the very negotiating process it had worked so hard to establish, it was the NAS/UTW which vigorously decried the signatory organizations.

Last week produced further confusion. The headteachers' associations abstained from voting at all on an interim cover agreement. Whose turn next?

Or rather, on what terms can the unions bury their various rivalries, if only in a shallow, temporary grave? Can they ever get their act together long enough to present a common front? The answers are obviously important to teachers, bemused and frustrated by their leaders' public and unpredictable pique. They are just as interesting to the local authorities, wearied by their inability to gauge precisely where teachers will agree among themselves, let alone with their employers.

Depressingly, however, the unions—for the foreseeable future at least—may well emphasize the issues on which they say they differ irreconcilably rather than the matters on which they can, with enough will, achieve a degree of unity.

There is a perverse sense, of course, in which the unions need to appear in sharp disagreement with each other to justify their continuing separate existences. Falling rolls have meant fewer teachers, and fewer teachers mean fewer members.

If the unions were High Street banks or building societies, the commercial

logic of a falling market alone would have produced mergers years since. As it is, the temptation to squabble for a share of the declining potential membership has too often proved irresistible. The resulting arcane quarrels have confused teachers, disaffected the public, and given heaven-sent opportunities to those bent on slamming schools and teachers at every opportunity.

There was a period earlier this year when inter-union strife was suspended in favour of the real debate—the case for new priorities for educational investment, with improved teachers' salaries as the most urgent of them. That was the context in which Kenneth Baker replaced Sir Keith Joseph. That was the climate in which popular concern could no longer be interpreted as mere antagonism to disruption in schools. That was the background against which the Coventry Heads of Agreement emerged—to NAS/UTW dissent, maybe, but to unprecedented Governmental silence and public relief. We would all do well to remember it.

'Teachers are bemused and frustrated by their leaders' public and unpredictable pique'

I do not argue that teachers should seek inter-union consensus at any price whatsoever. After all, there is no group loyalty more intense than that of the lemming on route to the cliff. I simply suggest that before we engage in the blind sports of the autumn recruitment season we pause to look long and hard at the progress all the unions—all of us—have achieved, and the problems which face us all—and again, I mean, all.

The Coventry framework for salary structure reform records the local authority employers' first public and quantified acceptance of the need to pay teachers far more than they have ever before conceded.

The proposed Entry Grade would



United in the opposition to last year's pay offers but divided over negotiating strategy (clockwise from top left) Peter Snape, SHA, Fred Jarvis, NUT, David Hart, NAHT and Fred Smith, NAS/UTW

provide substantially improved and attractive starting salaries for new entrants. They would not, as in the past, be thrown into the deep-end of the timetable's pool, but have time to adjust with confidence to the full professional teacher's load. In their first two induction years they would be entitled not just to ad hoc encouragement and commiseration, but to systematic, structured, professional support. On progression to the Main Professional Grade, they would receive a substantial salary increase, reflecting their status and value as full members of their chosen profession, in which they had been fairly assessed as competent practitioners.

The MPG teacher would benefit from more competitive salary levels with a guarantee of career and salary progression currently denied to two-thirds of the teaching force as, under the present arrangements, promoted posts disappear with the slump in pupil numbers.

The proposals for Principal Teacher allowances secure the principle of providing incentive and rewards to those with discharge additional responsibilities. At least 15 per cent of all teachers, including heads and deputies, would be classified as Principal Teachers. That means that at least 29 per cent of the entire national teaching force would be on either Principal Teacher, deputy head or headteacher salary rates.

There is much negotiation to come. There will need to be agreement on the salary entry point for mature entrants and re-entrants to the profession. Agreement will be necessary too over the salary position of MPG teachers who move from one school to another. Complex issues arise over the payment

of teachers in special education now that authorities are implementing new—and by no means uniform—policies for children with special needs.

Both sides accept the need for further discussion about the proportion of teachers to be paid Principal Teacher allowances, an issue of understandable importance to teachers currently paid on Scale 3 or above. For the Senior Teachers who have argued so tellingly the case for realistic differentials there is the additional crucial issue of assimilation yet to resolve.

Further negotiations will lead to detailed final agreement only if all of us face two inconvenient facts of life square-on. The first is that the present structure, universally accepted as antiquated, cannot be both radically reformed and, at one and the same time, be allowed to stay unchanged. The second is that the nature of any reform will, one way or another, inescapably demonstrate the tensions which exist between entirely valid but inherently opposed priorities.

The major priority clash has identified itself already. On the one hand, there is the need to guarantee all teachers, whether primary or secondary, what has been too long denied: an achievable professional salary rate for the pre-eminent important task of classroom teaching.

On the other hand, there is the need to provide powerful incentives and demonstrably significant rewards for those willing to discharge undeniably onerous managerial responsibilities within their schools. Hence the particular responsibilities within their schools. Hence the particular alarm of Scale 4 teachers, Senior Teachers and deputy heads in larger secondary schools when the Heads of Agreement

were published. Their arguments have equal validity.

The question, therefore, is not whether the Coventry Heads of Agreement squandered the salaries circle. The resulting framework was never likely to do so. The real issue is more subtle: is there now an agreed framework in which conflicting interests can be balanced? The judgement of the Coventry signatories is clear. The fact that you haven't discovered the Holy Grail doesn't mean that you're left with a poisoned chalice.

As for conditions of service, there may be even greater problems. But Coventry produced real progress on a range of critical issues. For the first time, local authorities have agreed to negotiate limits on working hours, class size and contact time for primary and secondary teachers. Within those guarantees, individual job descriptions for teachers should lead to a fair distribution of work in schools and curb exploitation. An equitable and open system of regular appraisal, once implemented, should provide a new, professional basis for career planning and development and replace the current capricious arrangements with a new, superior professionalism.

And it is only a new professionalism which will make the Acas process worthwhile. A lot depends on the i.e.s. A good deal depends on teachers. However, even more depends on the Government—until Better Schools was a hollow slogan rather than a firm commitment, in which case all bets are off.

Peter Smith is deputy general secretary of the Assistant Masters and Mistresses Association.

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Cover deal

The keynote speaker at next weekend's annual conference of the Confederation for the Advancement of State Education was to have been Sir Keith Joseph. His replacement is not, as you might expect, Kenneth Baker, Chris Patten or even Bob Dunn, but Frances Morrell, leader of the Inner London Education Authority which is one of the Government's pet hates. However, judging by the deference paid to her by Giles Radice at a recent fringe meeting at the TUC for her superior knowledge of Labour Party policy, she could well be filling in for the Tories as well.

Setting direction

Two years running one of the country's most troubled and troublesome authorities should put Adrian Parsons, ex-director of education for Brent, in good stead for his next task. He is to speak on Monday at an Industrial Society course on management training in education.

Base data

They know how to enjoy themselves in Hull—even the number crunchers. A local group of the Royal Statistical Society will meet in October to hear one J.E. Beag from Durham University give a talk on the "Statistical Analysis of Dirty Pictures". That sounds livelier than an offering at Goldsmith's on "Parameter Orthogonality and Approximate Conditional Inference".

Building block

The LEA is fighting a rearguard action to keep its home in County Hall, which it shared with the now defunct GLC. And it is being helped by the push people's estate agent, Knight Frank and Rutley. For the price of £38,000 plus VAT, the firm is doing an independent assessment of the kind of property the LEA will need if it has to go. Officials think the cost would be more than £100 million to move out. And they have no doubt that KFR will confirm their fears. The study is expected to be finished by the beginning of October, just after the London Residuary Body, which is responsible for trying to locate ends left by the abolition of the GLC, announces what it wants to do with the huge edifice opposite the Houses of Parliament.

Slanted view

The Society for Illicit Handwriting means the fact that, despite their efforts, fewer than 40 schools are members. They told us so in a copy of the minutes of their annual meeting—in type.

Household name

What's in a name? Quite a lot of fun or a lot of anguish from rumours emanating from Hamilton House, present headquarters of NATFHE (shared with the NUT). The union is preparing to move about half a mile away into the former HQ of Whitbread's brewery. But what to call it? Its present name, Britannia House, sounds far too linguistic for the lefties on the executive. Jokers suggested Whitbread in honour of the past president, Nan, or perhaps Childer House in respect of the present one, Ken. Some socially-conscious members wanted Nelson Mandela, but it is in the people's republic of Jelington which already has lost of those and the postman would be a spark might suggest that they take a leaf out of the NUT's book and call it after the treasurer involved in negotiating the deal. In which case it would be Mints House.

Acronym

The results of the study—one of a series planned—are set out in this summer's issue of *Maladjustment and Therapeutic Education*, the journal of the Association of Workers for Maladjusted Children.

NEWS

James Meikle meets Michael Duffy, the new president of the Secondary Heads Association

The ice-cool image man cometh



Michael Duffy

consultative paper."

Students, he argues, are sensitive to the mood of teachers. "The starting point has to be a sense that teaching is an important, difficult and worthwhile vocation."

"For too long we have been scapegoats for the country's ills. For too long we have been described as parasites on the economy."

He pauses to admit that those exact words may not have been used but resumes with vigour when reminded that publisher Robert Maxwell came close at the SHA's conference at Oxford in April, by blaming teachers for failing the country.

"The text of Maxwell's address will be seen as a very significant element in the difficulties schools are being made to labour under."

Michael Duffy says conditions of service are as important as salaries. Buildings and surroundings also have to be attractive to lure graduates into the profession.

He and his colleagues are sensitive to suggestions that the SHA might not have done as well for members out of the Coventry heads of agreement as they might have expected.

"At the end of any period of hostilities, the demand is for peace and

justice. History proves"—he is a historian—"you very seldom get both. The imperative for most heads and deputies was peace."

It was deputies, he stresses, who endured most of the "stifling bloody-mindedness" during the 18-month pay dispute. He and colleagues will work for improvements but there are benefits to be gained from a restructuring of schools and pay systems.

"There is a firm acceptance that traditional, hierarchical models of school management are dead. We are looking for more consultative, participative management."

Michael Duffy is one of the leading figures in the Education 2000 movement—a think tank of educationists planning for the next century—and he talks enthusiastically about widening opportunities, flexibility of courses and modular credits for pupils of all abilities, adult and part-time students.

He eloquently lambastes the Government over what he perceives as its seeming lack of enthusiasm for the Certificate of Vocational Education. "There is a huge gap in curriculum provision for 16 to 19-year-olds. How do you fill it if CPVE is not going to carry the conviction it needs and deserves?"

"The Government's definition of a successful sixth form is one offering 15 A levels, or seven A/S levels—and where is CPVE?"

At the other end, he adds, too much weight is being given to the two-year Youth Training Scheme—already having a significant effect on the school leaving rate.

He views the Government's ideas on school closures and reorganization as "short-sighted, superficial and spurious."

The draft consultative paper is "a

salutary reminder of what happens if you let accountants and copywriters loose in the DES."

The assumptions are based on a normal school leaving age of 16, and sixth forms being essentially the preserve of the top academic 15 per cent. All this takes no account of the needs of community schools, he says, cataloguing some of the shortcomings.

Some space could actually be used to make sure schools have enough room to apply the Government's own policy of making science account for 20 per cent of all students' curriculum.

Then Michael Duffy attacks the implication that the chief safeguard for schools under threat will be strong parental support. "You know parental support is flimsy. You cannot guarantee parents will be as educationally enlightened as those guiding the country's education system need to be."

Michael Duffy oozes public relations panache, even as he and other SHA leaders comment coolly on calls from the National Association of Head Teachers for a merger.

They talk of differences of concerns—the NAHT is dominated by primary school heads and deputies, they argue. They talk of differences in style—the SHA is smaller, more intimate. But they leave other pundits to assess differences in image.

"We haven't sensed any significant pressure from our members for the sort of merger that is being proposed," asserts Michael Duffy, while he stresses the SHA is not ostrich-like and will enter talks with the NAHT next month with an open mind.

The SHA is not complacent, he says. Much of its important work is behind the scenes. Members like to be consulted, and remain "stubborn, obstinate and independent." He will undoubtedly relish being their front man.

Baker faces revolt on sex education

by Barry Huggill

Mr Kenneth Baker, the Education Secretary, will come under fire at next month's Conservative Party conference over the sex education clause of the Education Bill.

Critics on the right of the party are intensifying their campaign for parents to be allowed to withdraw children from sex education lessons.

An amendment to allow withdrawal has been put down for debate in the Commons on October 21 when the Education Bill is due for its final reading. To date it has received the support of more than 80 Conservative MPs and its sponsors hope to increase that number to well over 100.

At the party conference in Bournemouth, a Tory pressure group, the Conservative Family Campaign, will attempt to rally support for the amendment.

Mr Baker is expected to refer to the sex education clause in his speech to the conference. He will stress that it places an obligation on schools to teach the subject within the context of morality and family life.

He will also point out that it obliges schools to keep parents fully informed about what, and how, sex education is taught.

The DES ministers are understood

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Protestants fear 'Trojan horse'

by Carmel McQuaid

Teachers in Northern Ireland too often show "latent hostility" towards school activities designed to promote better understanding between Roman Catholics and Protestants, according to a report on human rights education.

The report, prepared for the Standing Advisory Commission on Human Rights by Mr. Clem McCartney, a lawyer and research officer at the University of Ulster, finds "a substantial number" of people in the education service to be "at best suspicious" of such work.

The greatest suspicion seems to exist among Protestants who tend to regard community relations as a Trojan horse, the report states. Instances are also cited of teachers in the maintained (Roman Catholic) sector being criticised for inviting police into the schools.

Two sides play together at a Belfast youth club.

Centuries about initiatives promoting mutual understanding because they did not know how to teach the subject. Fear of opposition from parents was also a factor in some schools.

tion if a project did not work were other deterrents.

Though "very little overt opposition" was seen at administrative level, a "mood of caution" was identified which "may reflect unease with the implication of community relations work and the fear that it may get out of hand."

As a result, education officers positively looked for "safe, non-contentious projects which would not lead to adverse publicity", the report states.

Families out of touch

by Sue Surkes

Pupils at residential schools for the maladjusted receive little support in their education from family members other than parents, a survey has found. Of 173 schools in England and Wales who replied to a questionnaire, 151 always contacted parents before a child's placement; 114 always did so during placement and 96 always did at the end of a child's stay. But only five always contacted family members other than parents with 15 reporting that it was usual practice.

Study authors Graham Upton, Chris Bundy and Bebe Speed conclude that the low level of family involvement "is unfortunate."

The results of the study—one of a series planned—are set out in this summer's issue of *Maladjustment and Therapeutic Education*, the journal of the Association of Workers for Maladjusted Children.

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Back to school

Back to school

The new term has now begun in earnest – but will there be peace in schools this autumn? Here, and opposite, *TES* staff report that the three main teacher unions are engaged in pockets of industrial action while, on page 8, Jeremy Sutcliffe visits a comprehensive to see how the Coventry deal would affect senior teachers.

Cover deal exposes rift in NUT ranks

by Barry Huggill

"A major breakthrough" is how Mr Doug McAvoy, deputy general secretary of the National Union of Teachers, described last week's interim agreement on cover.

He was delighted that the employers had agreed to use "their best endeavours" to provide schools with



Julia Alterman

supply teachers "as soon as practicable" after a member of staff's first day of absence.

But his delight is not shared by some members of the NUT's largest, and most militant, section, the Inner London Teachers' Association.

Ms Julia Alterman, ILTA executive member, speaking in her personal capacity, made her feelings clear: "Teachers in Germany, France, and Sweden don't cover. It is no part of their professional duty and it should not be part of ours."

She added that ILTA saw "no cover" as a right, not a sanction. Within days of the new term starting, heads throughout the Inner London Education Authority's 10 divisions were hearing from their NUT school representatives that the "no cover" policy introduced during the long-running pay dispute was still in operation, regardless of any national agreement.

Mr John Kemp, head of Hackney Downs comprehensive, in east London, was told that his NUT members would not be covering in any circumstances, nor would they be participating in any out-of-school activities. He is three teachers short and, for the time being, is managing with supply staff.

Mr John Phillips, head of Graveney School, Wandsworth, received a similar message. He said that many other heads in the area had also been told that the "no cover" policy was still in operation.

He is attempting to run a new institution of 2,000 pupils and 150 staff born from a merger of two schools. His



London teachers see "no cover" as a right rather than a sanction

major worry is that the refusal of most of his staff to attend parent/teacher meetings will not help the school to establish itself.

Mr Phillips, a leading member of the Secondary Heads Association, says that the teachers' action would confuse parents. "We cannot expect parents to read the small print," he said in reference to July's Coventry settlement. "They read in the papers, and see on the TV, that a deal was struck and they think that the disruption is over."

Mr Phillips and Mr Kemp have had no trouble so far but how long the peace will last will be determined by the full ILTA membership at their October 26 meeting.

Ms Alterman doubts the ILTA will be able to provide supply teachers as quickly as the employers suggested they would and says it is quite possible that the meeting will vote to continue "no cover" action.

"The authority is already 150 teachers short in the primary sector so there will clearly be no supply teachers

available to cover for teachers who are absent."

Ms Deirdre Wood, chair of the ILTA staff sub-committee, is keeping her fingers crossed that ILTA will fall into line with its national leadership. "So far we have heard of no trouble in our schools, in fact in cases of absence teachers have covered," she said.

Following the Scott judgment that teachers have a professional obligation to cover, ILTA could deduct the pay of any teacher refusing to do so. But Ms Wood was not prepared to discuss the matter.

"The problem has not arisen," she said. "The NUT executive has ratified the agreement and I hope that it can convince its members to abide by it."

A similar position was adopted by Mr Fred Jarvis, general secretary of the NUT. He refused to be drawn on what action, if any, the union would take against members ignoring national decisions.

"We have sent out guidelines to all our members and I am convinced that the majority will go along with the

agreement. I am not prepared to say what action will be taken against members who do not comply until we receive evidence that they are abiding by the agreement," he said.

The question of cover was put in historical context by Mr Michael Maund, head of the North Westlake Community School. "It has been a mess for 25 years," he said.

Mr Maund has no immediate problems – "we have had a marvellous time to the school year" – but he is concerned about the quality of teaching provided by cover and supply staff.

"About one-tenth of lessons are taken by cover or supply teachers and the only way to improve educational standards is to improve the quality of that teaching."

"We have had guidelines on everything under the sun from the teaching of classics to the number of urinals that we have to have in schools yet we have never had anything on how to improve the quality of supply and cover teaching. It is a great educational vacuum."

Distant rumble of militancy by the reluctant tendency

by Bert Lodge

When the banner of revolt is first raised among a group of teachers the supporting pole is not usually in the fist of an AMMA member.

The image of the Assistant Masters and Mistresses' Association is still softened by the grammar school origins of what were two proud, professional associations before they merged in 1978.

But in Northamptonshire it is AMMA which this term has told the authority that its 1,300 members will refuse to take the class of a teacher who has been absent for more than one day.

The outsider groans, having got used to thinking that the teachers' dispute was over.

"Ah, but that dispute was about pay," says Mr Richard Austin, head of science at Daventry Southbrook comprehensive and secretary of the AMMA county branch. "What we are demonstrating is our concern at the deteriorating quality of education."

He goes on to explain: Northamptonshire County Council needed this year to save £1.5 million to hold down the rate increase to 12½ per cent. It proposed to save £1.2 million by reducing the teaching force over and above the economies which would result from falling rolls. This means a loss of 147 teaching posts.

All right, premature retirement with enhancement is on offer but the other target is teachers on part-time temporary contracts. They are being

reduced by 100 or 'We are reducing your hours'.

"We are seeing GCSE science classes with more than 30 pupils in them. There is a loss of minority subjects and remedial work is also suffering."

Mr Austin is also keen to emphasize what his members are not doing. "We are not withdrawing from parents' evenings. We consider them too important. And a suggestion that we boycott staff meetings was also overwhelmingly defeated. In fact, before we considered doing anything we first had a ballot on whether we should have a ballot." Now that sounds more like AMMA.

Indeed, nothing precipitate occurred. When the county announced its plans back in spring, a group of teacher representatives met the leader of the



Quiet disquiet: Daventry Southbrook school, where AMMA's secretary in Northants, Richard Austin (inset), teaches

council and the chairman of the education committee. "It was an amicable meeting but we couldn't persuade them to change their minds. Even our president, Mrs Mair Widdowson, came up but we couldn't shift them."

The first groundswell of feeling was perceived not at a full branch meeting but at a normally-quiet area meeting in Brackley. This led to the proposal to ballot and 600 members responded with three out of four voting to refuse to cover for a colleague after the first

day's absence. The branch placed adverts in local papers – an adroit move because it led to a considerable amount of editorial coverage as well. Mr Austin said: "It alerted parents to the factual consequences of the cuts and made it clear our action was not about money for ourselves. And we have emphasized that we have put a time limit to the action next February when we shall know the budget for next year. At the same time we would call it off now if the 1985-86 pupil-

teacher ratio were restored or, better still, improved upon."

How did the other unions, accustomed to thinking of themselves as being in the van of teacher militancy, react to the spectacle of AMMA setting the pace? The reply from Richard Austin was utterly unself-conscious. "Oh, when it's over a matter of principle they expect the lead to come from us."

If that is a conceit it is not an empty one. In many schools the number of heads of department who are members of the association is disproportionately high. Not unreasonable to expect that bit more gravitas from them in their approach to the job.

Indeed, Mr Austin practically gave it away. "Remember AMMA can only ever advise members. There is no power to instruct like some of the others have. Suppose cover was not available on the second day no member of this association would see classes sent home or put on the street. We hope heads would do their utmost to get people."

Or, in other words, the professional values associated as forerunners with AMMA members would prevail again.

Welsh union urges out-of-hours ban

The Welsh teacher union *Undeb Cenedlaethol Aithrawon Cymru* (UCAC) has told its members to refuse to take part in any extra-curricular out-of-hours school activities as part of its campaign for an improved pay offer.

Mr Wyn James, its general secretary, has instructed members not to attend staff and departmental meetings outside school hours, to refrain from attending in-service training courses, and to refuse to sign any contract

concerning dinner-hour supervision.

He said: "The results of the Acaes discussions embodied in the document Heads of Agreement clearly fall well short of members' demands." He explained that the present pay offer is between 15 and 20 per cent below the standards set by the 1974 Houghton report on teachers' salaries.

Mr James also pointed out that a concession to teachers to work bi-lingually situation was still lacking.

"The extra workload on these teachers should be properly rewarded as in Canada and other bilingual countries," he said.

UCAC has 3,000 members, mainly in rural Wales. Mr James said: "It is high time that the public and Government realized that teachers should not be expected to make themselves available to perform any task required of them outside normal working hours on a 24-hour a day basis."

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Still waiting for a truce . . .

by James Melkile

Birmingham schools are entering their third year of disruption despite recent national efforts to restore peace to the classroom.

While the city council and its teachers argue about where the responsibility lies for failure to agree to local truce, children are still being sent home.

The teachers' strikes stopped some months ago, when unions agreed an interim pay deal, but the legacy of the council's pay-docking policy lingers on.

About 3,500 members of the National Association of Schoolmasters/Union of Women Teachers are refusing to cover for colleagues for more than a day, and then only for unforeseen absences. The action is being taken in support of their demand for repayment of some of the money that was docked from their salaries during the protracted pay dispute.

The National Union of Teachers, which has 5,000 members in the city, has called on its members not to fill in for absent colleagues if an NAS/UNT member has already refused to cover.

The NAS/UNT's dispute stems from the union's policy of short, sharp strikes which involve stoppages of minutes rather than hours.

The authority decided to implement a blanket 66 deduction for each lesson missed, regardless of the pay of the teacher involved. The union regards this as a fine, rather than pay deduction. Its policy is to argue the matter through industrial action and bargaining rather than through the courts.

Mrs Chris Kealey, the NAS/UNT Birmingham secretary, said: "We are not asking for any compensation. We are asking for your money back."

you lose pay. Our argument is based on the way it was deducted."

Birmingham education authority expects teachers to cover for the first five days of a colleague's absence. But the teachers complain that informal, unwritten arrangements for three-day cover were unilaterally altered by the authority.

The Council of Local Education Authorities has advised members to deduct cash where teachers refuse to honour cover responsibilities. Otherwise they could face prosecution from parents for failure to ensure education for their children. But Birmingham has so far avoided docking money for failure to cover.

The NUT was this week hoping for a meeting with council representatives on the issue, while maintaining that any new arrangements on cover would not affect their refusal not to undermine other teachers' industrial action.

The NAS/UNT is not interested in any such talks until the lingering row over the strike deductions is settled.

But there is another argument for not providing cover up to the level expected by the council.

The NAS/UNT, though one of the signatories to a memorandum that set up talks at the conciliation service, Acaes, in the spring, signed neither the later Heads of Agreement on pay and conditions at Coventry in July, nor the stop-gap agreement on cover signed by some unions in London last week.

Employers said they would use "their best endeavours" to provide schools with supply teachers as soon as practicable after a member of staff's first day of absence. The unions agreed that where an authority could not find or afford supply staff, they would "share equitably" cover arrangements.

Mrs Kealey said: "While unions who are signatories are not doing cover, why should we abide by an agreement we didn't even sign?"

Mr Tony Miller, spokesman for the NUT in the city, said: "There is no question of us operating five-day cover."

Meanwhile, as the unions argue about who is trying to get the best deal for their members and the city council considers the next step, children are likely to be sent home from school for some time to come. So far it has been impossible to determine the effect of the strikes.

051-1250

Back
to school

NEWS

Jeremy Sutcliffe talks to a senior teacher who stands to lose status if the Coventry deal is implemented

Caught in the middle



Roger Adams: professional setback

If nearly everyone got some meat and bread from the deal struck at Coventry this summer, spare a thought for those who, like Roger Adams, have been left with only the crumbs.

Mr Adams is one of three senior teachers at 1,325-pupil Ossett School, Wakefield, who stand to benefit least from the Heads of Agreement deal signed by the local authorities and most of the teacher unions in July.

Under the deal his maximum salary would go up from £15,385 to £16,000 (£16,500 from September next year), the maximum figure under the newly-created Principal Teachers' Grade. He will be caught up at a stroke by several of his colleagues who are Scale 4 heads of department, but who at present have less administrative responsibilities. They stand to gain a pay rise, above their current £14,151 maximum, of nearly £2,000.

For Mr Adams, and several thousands like him, the new deal will mean loss of professional status and overnight disappearance of pay differential. "Presumably under this deal I would go back to the level I was at four years ago as a head of department," he said.

At the moment, he is head of a large maths department, with eight full-time and four part-time teachers under him.

He is also in charge of the school's communications, including the school bulletin, and is responsible for prize days, carol services and other events. He has to arrange cover for absent staff and sort out room changes.

If the Coventry deal is implemented

without changes he faces the choice of either jettisoning some of his administrative tasks, something he is loath to do, or giving up his job as head of maths.

"There is no way I am going to continue taking on all those responsibilities without relative benefits. If the pay is the same as other principal teachers, the workload is going to have to be shared," he said.

It is not only Mr Adams, and others like him, who will suffer. "Basically, principal teachers are going to be

asked to do certain administrative jobs. That is going to take more teachers out of the classroom, which many heads of department do not particularly want to do. But they are going to have to if they want the extra £2,000."

The effect, he believes, would be to take committed and innovative teachers out of the classroom for several extra periods a week to do administrative jobs. "In that respect at least I think the new structure would not achieve what it sets out to achieve. It's a bit like getting rid of hospital administrators and spreading the load between doctors."

An indication of how senior teachers at Ossett, a group 12 school, would fit back in the pay ladder can be seen by comparing them with a deputy head in a group 9 school, who receives virtually the same pay at present. Under the Coventry package the deputy head's maximum salary would go up from £15,385 to £17,500.

Not surprisingly, Mr Adams is beginning to get fidgety. "I'm being extremely happy at my present school. I do not particularly want to uproot my family, but I might well have to do so to further my professional career. I stay here I will just be going backwards. I feel I have been sold down the river."

Mr Adams' plight is viewed sympathetically by the head, Mr John Horn. "It will be the task of heads to restructure roles and responsibilities in a tactful, understanding and sympathetic way. My own view is that some special arrangements should be made to protect existing senior teachers. I believe they should receive an allowance of £2,750, which is the major and minor allowances for principal teachers put together, but that would be for existing senior teachers only," he said.

Mr Adams' worry is also shared by his union, the National Association of Schoolmasters/Union of Women Teachers. The representative at the school, Mr Derek Mallinson, said: "Senior teachers are the ones who will come out worst. They will get the smallest pay rise and will lose status."

Mr Mallinson believes the Coventry deal leaves teachers "in a sort of limbo". It is too vague and too many of the issues are fudged. "It seems to me that what we have been offered is not commensurate with what we have been asked to do. It is not clear yet how it is going to affect us, and unless it is I do not see why we should sign it," he said.

Despite reservations from representatives of all the main unions the Coventry accord has brought a period of peace in the school. For the first time in 18 months, extracurricular clubs, activities and meetings are taking place and a full programme of boys' and girls' sport is operating.

The early signs are that the new temporary deal on cover will not lead to any classes being sent home in the foreseeable future. The local education authority, led by Mr John Pearman, chief Burnham negotiator, has a long-standing agreement to provide cover for a teacher after three days of absence, and after the first day for each subsequent absentee. Difficulties remain, however, in obtaining a suitable number of supply teachers, and problems could arise later in the term in covering for illness and necessary in-service training.

There has been an uneasy return to normality, too, in the school dining hall, where ancillary staff are exercising goodwill while the authority tries to reach a deal on lunchtime supervision. Unless such a deal involves supervision by teachers, who will probably insist on being paid, there could be a return to the chaos of last year when hundreds of children were unable to eat school dinners.

Mr Horn is looking forward to a more settled period than the school has enjoyed for three years. But he is holding his breath. "There seems at the moment to be considerable goodwill to ensure that we have a time of peace and calm while the nitty-gritty details of the Acas agreements are sorted out. I think that goodwill will last as long as there is a feeling that there will be a successful outcome. The major factor that could damage such goodwill would be any indication from the Government that it was not prepared to fund such an agreement. The feeling of almost everyone at the school is that that is unlikely. They believe the Government would not dare."

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A letter of commendation for a class or school, to be awarded at the end of the competition.

The Banqueting House, Whitehall, Oldwick House, Richmond Palace, Ham House, The Jewel Tower, Westminster, Kensington Palace, Kenwood House, New Palace, Marble Hill House, Osney Park House, Ranger's House, Swan House.

A free entry for school parties visiting by prior arrangement.

PARTICIPATING ORGANISATIONS

The competition is being organised by the Department of the Environment, with English Heritage, the Victoria and Albert Museum, the Historic Houses Association, the London Standard, the London Region Architectural and British Rail. The Standard will offer weekly articles on the sites and offer a prize.

FURTHER INFORMATION

Schools in Greater London should already have received full details for the beginning of the term.

Other schools should complete this coupon.

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London exodus highlighted by union survey

by James Melkie

Teachers are leaving London's classrooms in alarming numbers because of high living costs and low pay, the Assistant Masters and Mistresses Association claimed this week.

It said the exodus was leaving gaps not only in the nationally recognized shortage areas of craft, design and technology, science, maths and modern languages, but in music, English, physical education and home economics.

AMMA's claim follows the publication of the results of a survey of shortages and unfilled vacancies in 157 schools in the Inner London Education Authority and the outer London boroughs.

It found 155 unfilled vacancies at 63 maintained secondary schools - more than 4 per cent of schools' full-time establishment. The 41 vacancies recorded in 63 primary schools represented nearly 6 per cent of posts.

Several employers undertook late recruitment drives stretching into the summer holidays to combat such deficiencies and have reported some success.

But AMMA is still worried about the situation with supply teachers "frequently neither qualified nor trained in the subjects they were

covering" being used to fill in. Mr Peter Smith, the union's deputy general secretary, said: "Already whole classes are missing out on crucial aspects of their education, and a real crisis for many schools could be just round the corner."

"We are not talking about a situation that existed for three or four weeks at the end of last term. We are talking about posts that are unfilled for a year."

The survey of the secondary schools discovered 25 mathematics posts that could not be filled by permanent staff or long-term peripatetic teachers. The figures for other subjects were: design and technology 31, physics 7, chemistry 7 and modern languages 10.

AMMA's survey found a number of teachers leaving the profession - for example, to become osteopaths, kitchen fitters, policemen and farmers.

Thirteen independent schools were included in the survey. Five reported unfilled posts. Five vacancies for class teachers were reported among a check on 11 special schools.

The AMMA survey is likely to be used as ammunition in campaigns to improve London allowances for teachers.



Fishing by the book: 14-year-old Andrew Pitcher angled for his first fish with a little help from Buckinghamshire's Book Box, the floating library service, which called at the canal basin in Aylesbury during the summer holidays. The boat travelled to Grand Union Canal dispensing information about libraries, books and boats to children. The service was provided jointly by British Waterways, the Buckinghamshire library service and Milton Keynes Boats.

Pledge on girls-only classes

by Barry Huggill

A Liberal/SDP government would ensure girls-only classes in mixed schools in maths, science and technology-based subjects.

It would also introduce special women-only Youth Training Schemes and encourage girls leaving school to opt for non-traditional jobs.

A joint policy statement produced by the two parties in time for next week's SDP annual conference in

Harrogate says that single sex classes allow girls to develop their potential without the unfair pressure of aggressive competition from boys.

Other proposals include:

- Equal opportunities policies which will ensure that within a few years there are many more women heads and chief education officers;
- Better childcare facilities with the

objective of a crèche in every educational institution; and

- More books and other teaching materials that present more positive images of the potential and achievements of women.

Freedom and Choice for Women: A Liberal-SDP Alliance Policy Proposal. £1.50 from the SDP, 4 Cowley Street, London SW1P 3NB.

Closed school owes staff £56,000 in salaries

by Jeremy Sutcliffe

Staff at a Wiltshire independent school which has closed owing £400,000 have not been paid since May, a creditors' meeting has been told.

Diadem School, which ran Ashton Gifford School for maladjusted boys at Codford, near Warminster, owed £56,000 to 20 staff, the meeting at the offices of a firm of chartered accountants Ernst and Whinney was told. Some were said to be owed as much as £4,000 in unpaid salaries.

The accountants' solvency partner, Mr Cedric Clapp, who has been appointed as liquidator, said this week

he would try to sell the school as a going concern. The school owed its bank £300,000 and a further £100,000 to unsecured creditors. The overall deficiency was £70,000 once the assets had been taken into account.

The main reason for the collapse was insufficient capital, said Mr Clapp. The school had relied almost entirely on Wiltshire County Council, which paid about £12,000 a year per pupil.

Seventeen pupils left at the end of last term and were not replaced because the authority had its own facilities.

Achievement records plan

An introductory leaflet for teachers on the projected national scheme for recording school-leavers' achievements was sent this week to all schools and teacher training institutions in Wales.

More than 30 secondary schools in Wales, one of nine pilot areas, will be involved. The other areas are Dorset, East Midlands Consortium, Essex, LEA, Lancashire, Suffolk, Wigan and a consortium of Coventry, Leicestershire, Oxfordshire and Somerset.

The leaflet points out that while many schools have already developed their own achievement schemes their variety limits national recognition. The Government plans to introduce the new scheme by 1990.

Blind accept mainstream cannot meet all needs

by Bert Lodge

The Royal National Institute for the Blind has welcomed the comments in the Fish report that the needs of London's handicapped children cannot be met solely in mainstream schools.

The Institute fully accepts the main recommendation of the report, which was published last year, that inner London children with special educational needs should be accommodated in ordinary schools and colleges.

But it endorses the qualification that "there will be some groups whose needs cannot be met in ordinary schools in the short term, and a small number whose needs cannot be so met in the longer term."

It also supports the report's recommendation that integration should be implemented in phases. The RNIB suggests that the final phase will equip a few ordinary schools with the support systems needed to cater for partially-sighted children. These schools should

be strategically placed throughout the authority.

The Institute also intends to establish, at its newly-merged Worcester-Chorley Wood College a resource unit to service local authorities integrating visually handicapped pupils into ordinary schools. At present, it runs five schools for visually handicapped children who also have other handicaps.

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Prestel Education includes specialist databases of real value to education, such as the ECCTIS and POLYTEL courses guides, the SIGNPOST careers guide, the SCHOOLS' TELESOFTWARE service and SEND, the Special Educational Needs Database.

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Prestel pages are displayed on the screen in the standard easy to read viewdata format of 24 lines of 40 characters and seven colours. With a suitable display monitor, this means you can use Prestel for classroom demonstrations, and with groups of children, as well as individual work.

Courses and Careers

Course vacancy services on Prestel Education

Every year thousands of school leavers find they didn't quite get the A level results they needed for a place at the college or university of their first choice. The most popular courses fill up quickly, but many still have places vacant. There then follows a mad rush as people try to find out which courses are still accepting applications.

Last year, for the first time, course vacancy information was available on an electronic information system, through the POLYTEL service on Prestel Education.

This year subscribers to Prestel Education have a choice of two services. In addition to POLYTEL, the ECCTIS database is including latest vacancy details for courses covered by PCAS, the Polytechnics Central Admissions System, and AFEIS, the Advanced Further Education Information Service.

POLYTEL is funded by PCAS and the Committee of Directors of Polytechnics and is based at Middlesex Polytechnic. This service now covers all first degree, HND and Dip HE courses at polytechnics, including art, design and teacher education courses.

It works through a simple subject based index to a list of all courses in that particular subject. When a course becomes full, the colour of the entry is changed from blue to red, so you can tell at a glance which polytechnics still have courses vacant.

The ECCTIS database contains details of all postgraduate taught courses, first degree courses, and

nationally validated advanced courses throughout the UK. It currently includes details of more than 30,000 courses and this will rise to around 80,000 as non-advanced courses are added over the next two years.

The database is held on the Open University mainframe computer and linked to Prestel through a "gateway". By combining the advanced bibliographic search facilities of the mainframe computer, with simple access to the system through Prestel, users can undertake complex searches of the database, while still using the simple instructions normally associated with Prestel.

ECCTIS on Prestel has been running for two years, but this August and September was the first time that course vacancy information was included. After the A level results came out on August 14th, the service proved so popular that for a period of two to three weeks all lines from Prestel to ECCTIS through the gateway were engaged. Some people had to try several times before they could get through and steps are now being taken to increase the capacity of the service.

Course vacancy information changes so quickly that some anomalies are bound to occur. Nevertheless, when you consider the effort and expense of writing letters and making countless telephone calls (at trunk call rates) it is clear that Prestel Education can save a great deal of time and money in the search for a place.

Cheaper calls to Prestel

Local call access to Prestel has recently been extended to include Northern Ireland and the whole of Wales, so that 99% of the UK population can now dial Prestel at local call telephone rates.

This is not very helpful if you happen

to be in the other 1% of the country, but you won't have to wait much longer. By the end of this year we expect to reach 100%, so that everyone will be able to dial Prestel at local call rates, which is very much cheaper than trunk call charges.

What equipment do I need?

You need either a microcomputer, such as the BBC model B or Master, or Research Machines 480Z or Nimbus, or a Prestel adapter, which simply plugs into a standard monitor or TV set.

In both cases you also need access by a telephone line with the new style (square type) jack socket. This is fitted by your local British Telecom area office.

To use a microcomputer as a Prestel terminal you need a suitable modem, and software to convert your micro into a Prestel terminal.

So if your school already has a telephone line, a microcomputer, and a modem, all you need is the software. For the BBC microcomputer a suitable package is available direct from Prestel Education and costs £19.95. Software is also available for Research Machines and other commonly used microcomputers.

How much does it cost?

Used effectively in the school library and classroom, as a source of information and a medium for learning certain subject and information skills, the cost of Prestel is not excessive.

For schools, teachers' centres and LEA advisers, a subscription to Prestel Education costs £48 a quarter (£192 a year) and includes unlimited use of the whole of Prestel.

This means that schools can make full use of all the facilities and services

available on Prestel while still working within the constraints of a fixed budget.

For example, if you were to split the cost of Prestel between, say, the Library, Computer Studies, Careers and Business Studies departments, each could have unlimited use of Prestel for no more than £50 a year.

Further and Higher Education colleges, Careers Offices and other educational establishments pay a slightly different tariff. This costs £20 a quarter (£80 a year) plus a time charge of 4p per minute. Schools, teachers centres and LEA advisers may also take this tariff if they so wish.

What about telephone calls?

Telephone calls to Prestel are at local call rates for 99% of the population. Local calls are very much cheaper than trunk calls and cost about £2.00 per hour during peak time in the morning and £1.50 an hour at standard rate in the afternoon. If you can use Prestel after 6pm and at weekends, the cost of the telephone call comes down to about 50p per hour.

For a typical school, hard pressed for resources, this may seem a lot, but you don't have to use Prestel on-line all the time.

One way to save money is to download information from Prestel onto floppy disc, and then use it off-line anywhere in the school, without incurring telephone charges.



Linda Brockhurst, data administrator for Polytel based at Middlesex Polytechnic.

Keywords

Prestel's new keyword search facility helps you find information more quickly

Those already using Prestel will be familiar with using "page numbers" to go straight to any particular page.

With Prestel's new keyword search facility you can now type "keywords" and go straight to the appropriate Prestel index page.

For example "CURRICULUM" takes you to the Curriculum Matters section on Prestel Education page 88842. "ECCTIS" brings you the ECCTIS Higher Education courses guide. "ABERDEEN" takes you to the British Tourist Authority's gateway.

on Aberdeen. While "BRITISH RAIL" takes you straight to the British Rail timetable on Prestel.

Using Keywords proves just how much information there is on Prestel. From Abbots Langley to Zoos, "keywords" brings all kinds of information instantly to the screen.

The keyword search facility is currently being trialled by Prestel Education customers in the London area, and will be extended to all Prestel Education customers by the end of the year.

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POLYTEL

Guide to all first degree, HND and Dip HE courses at Polytechnics, including latest vacancy information. Updated daily in August and September. Provided by the Committee of Directors of Polytechnics in association with PCAS, the Polytechnics Central Admissions System.

SIGNPOST

Information on over 300 careers provided by COIC, the MSC's Careers and Occupational Information Centre. If you can't find the information you need you can use a free Prestel Mailbox to contact COIC, who will conduct a search on your behalf and forward further details and contacts.

SCHOOL LINK

An educational microcomputing service providing software reviews, special features on topical issues, news of developments in educational microcomputing facilities to encourage electronic communication between schools.

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SEND

The Special Educational Needs Database. Over 3000 pages of information on microelectronics and special education.

NERIS

The National Educational Resources and Information Service database, funded by the Department of Trade and Industry, will be yet another specialist educational database available through Prestel Education. NERIS aims to bring together information about teaching and learning materials that are currently scattered about the country and is due to be launched early next year.

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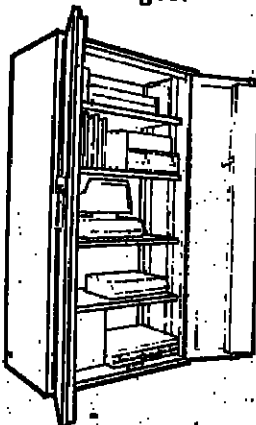
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NAME

ADDRESS

'Racism' label hinders discipline of Brent pupils, says NUT chief

by Barry Huggill

Racism has become "an all-abandoning phobia in Brent," says Mr John Poole, a member of the National Union of Teachers executive who works in the London borough.

He adds that "one cannot take disciplinary action against pupils for fear of being called a racist" - a comment which sets the background to the suspension by Brent of Miss Maureen McGoldrick and the subsequent strike action by her colleagues at Sudbury Infants' school.

This morning, the High Court will hear an application from the NUT that she be reinstated forthwith by the authority. If that application fails, Miss McGoldrick will face a council disciplinary hearing tonight.

If she is not back at school on Monday, the consequences for Brent, and for local parents and children, will be severe. There is little doubt that other schools would face industrial action by teachers backing her.

Even more worrying to many of the residents in the borough is the potential long-term damage to Brent's race policy and relationships with parents.

Mr Mike Cann, of the Sudbury Parents' Action Group, shares Mr Poole's concern over the implementation of the race policy. "It would seem that the issue of race cannot be discussed rationally in Brent. I think that Brent councillors and officers have collectively taken leave of their senses."

Miss McGoldrick was suspended after a junior council official alleged that the head had made a racist

comment to her during a telephone conversation.

Brent, correctly following procedure, asked the Sudbury governors to investigate. After six hours of examining both written and oral evidence, they concluded that there was no justification for the charge. The authority refused to accept the decision, the suspension remained, and arrangements were made for a disciplinary hearing.

The case to be made against Miss McGoldrick at this evening's hearing, if it takes place at all, is likely to rest mainly on evidence against her from a teaching staff assistant, Mrs Shellagh Szulc, who claims that in the course of a telephone conversation, Miss McGoldrick said she did not want another black teacher at her school.

The conversation was overheard by the deputy head of Sudbury, Mrs Pat Thomas, a mother of three black children, who says: "I am sure I would have noted that sort of remark as it is totally out of character with what I know of Miss McGoldrick. You can be sure that had it occurred, I would have immediately objected."

It is hard to find anyone in Brent who believes that Ms McGoldrick is a racist. Brent's race relations adviser has praised her work and the striking staff of Sudbury school have constantly repeated that they would not defend racist attitudes or actions.

Brent's beleaguered Labour councillors claim that they must be seen to be taking action on what is a serious allegation. Today's proposed hearing



Striking Sudbury School staff held a press conference at the NUT headquarters in London this week to explain why they are supporting their suspended headteacher.

Governors hold firm in shortlist row

by Jeremy Sutcliffe

would allow a full and fair perusal of all the evidence and, if the allegation of racism is groundless, Ms McGoldrick will be reinstated.

The eagerness of the councillors to be seen resisting racism can be partially explained by the publication earlier this year of an independent inquiry into education in Brent, which concluded that a major task for the authority was to tackle racism.

Within months of that report, two Brent officers, Mr Robin Richardson, the race relations adviser, and Mr Gordon Mott, the education officer (schools), were named by a black parents' group as "European supremacists" - an accusation they both vehemently denied.

In recent months, Brent has lost its chief executive, its chief education officer and its deputy chief education officer. The decision to suspend Miss McGoldrick was taken by Mr Mott.

Some members of the Sudbury parents' group believe that he, and other town hall officers, are under intense pressure from the ruling Labour group to implement the authority's race relations policies vigorously.

Miss McGoldrick is, according to Mr Poole, an "innocent victim" of the laudable desire to eradicate racism from schools - a desire, he says, which has degenerated into a form of "McCarthyism."

Governors of a large Dorset comprehensive have been threatened with court action over their refusal to accept a proposed shortlist for the headteacher's vacant post.

The governors of 1,800-pupil Budmouth School in Weymouth are standing firm over their demand that acting head Mr Jim Owen should be included on the shortlist.

The dispute between the 12 governors, who include three former mayors of Weymouth, and Dorset education authority, began when a selection panel omitted Mr Owen from a shortlist of three.

The panel, which under the school's articles of government consisted of two governors, two L.E.A. officers and a chairman, was split on whether to include Mr Owen or another candidate.

Mr Owen was excluded on the casting vote of the chairman, an L.E.A. appointee.

Since then, the governors have refused to take part in interviews for the headship, as required under the school's articles of government. The selection process has thus been brought to a halt.

Mr Kenneth Baker, the Education Secretary, wrote to the governors in July, ordering them to comply with the school regulations, but they have refused.

Now Mr Baker has written again threatening to take out an order of *Mandamus*, a judicial writ ordering them to comply with their statutory

duty. If they refuse to comply by September 23, they could face a fine or even prison.

Six of the governors are now to meet Mr Bob Dunn, education junior minister, to try to resolve the disagreement. But their chairman, Mr Roy Mauger, insisted this week they would stand firm.

"We have no intention of standing down. We are unanimous in our view that it is in the best interests of the school for Mr Owen to be on the shortlist," he said.

The row has taken on a wider significance in view of Government plans to broaden governors' powers, including the right to shortlist up to two candidates for headships. The powers are included in the Education Bill currently going through Parliament.

Mr Mauger said the Government should take note of the strong feelings held by all the Budmouth governors. He also accused the L.E.A. of ignoring their views and recommendations.

But Mr Peter Gedling, county education officer, denied ignoring the governors. He said the school's articles of government had been followed correctly. Those regulations gave the chairman a casting vote to break any deadlock.

"Governors accept the outcome of selection panels 99 per cent of the time. It is very unfortunate what has happened but in no way have we ignored the role of the governors," he said.

Head hints at quitting

A Surrey primary head may quit her job following suspension last month after a rift with governors over teaching methods.

Mrs Sue May, head of Woodmansterne county school in Banstead, said there were "limits to how much hostility" she could take from parents and governors who have called for her dismissal.

She was yesterday due to meet her National Union of Teachers representative and senior education officers to discuss her future. The options range

from reinstatement to dismissal. Mr George Gardner, MP for Reigate, has led calls for Mrs May's dismissal. A petition has been signed by 91 families calling for her removal as head of the 290-pupil school.

Mrs May said she would meet the L.E.A. "with an open mind", but added: "In the long run, one has to think what is best for the children, and indeed what is best for me."

Her opponents claim her attempts to introduce new methods are too radical, and the pace of change too great.

Bigger say

Headteachers want to strengthen the say of governors in local authority decisions to dismiss staff.

The National Association of Head Teachers is to lobby MPs in the hope of getting changes to the education Bill. Clause 35 says authorities should consult governors and heads (except where they are the people concerned) before

Court move

Governors of Bath's Royal School, an independent boarding school, obtained a court injunction this week barring Mrs Susan Greig, the head, from the premises.

According to the board of governors, Mrs Greig resigned on July 1 and was given until the end of August to leave. She maintained she had not resigned and carried on working.

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Sue Surkes reports from the British Educational Research Association annual conference at Bristol University

Inspectors who plug the gaps

Most of the coherent official policy on the primary curriculum over the past decade has come from Her Majesty's Inspectors, the conference was told. But its effective implementation requires extra money at a time when the Treasury is trying to cut public expenditure, Mr Jim Campbell, a senior lecturer at Warwick University, said. He gave qualified support for a national curricula framework at primary level, and described Government policy towards primary education as trifling and confused when compared with secondary initiatives such as the Certificate of Pre-Vocational Education and the General Certificate of Secondary Education. The policy gap had been plugged by HMI.

"On my reading of the situation, HMI have taken a directly interventionist role in policy formulation, despite their constitutional position and regardless of the cautiously sounded language in which they write."

Furthermore, their intervention, although an integral part of the centralizing tendency, has been substantially beneficial and protectionist towards liberal traditions of the curriculum in the face of what now have been hostile and unenlightened attitudes in the back reaches of the DES in recent years."

But if the HMI had some good ideas, they were often costly and therefore in direct conflict with Treasury moves to cut public expenditure.

Subject specialization, giving teachers the dual role of class teacher and subject adviser, needed "substantial" increases over and above current and planned spending to pay for additional staff and thus give primary teachers more time.

There was a fundamental contradiction at the heart of Government policy, Mr Campbell said. Improvements to the primary curriculum lacked the "drama and voter-appeal of grander initiatives at secondary level. The extent to which low-profile policy proposals are met with real increases of expenditure will be a good test for discovering whether a Government commitment is to the public education system or to political rhetoric."

A diversity of people, subjects and opinion has always been the hallmark of the British Educational Research Association – and this year's twelfth annual get-together at the University of Bristol was no exception. But if the beast seems to have as many tentacles as ever, it also has a distinctive head – with the words "policy", "practice" and "the real world" emblazoned across its brow.

The research community is trying to come to terms with the gradually changing climate brought about not least by cuts in funding and by pressure to move from the pure to the applied. This year's conference saw symposia on assessment, the lower attaining

pupils programme and TVEI-related in-service education of teachers. Participants could spend a whole day listening to and debating "policy and practice in contemporary state education". The hallowed BERA podium at Wills Hall, an Oxford college lookalike, were made available to some individuals whose work could not strictly be described as research.

The research community is trying to understand all the changes in the right way," the conference organizer, Dr Patricia Broadfoot, said. "And they are having to change because otherwise they will starve."

The move from pure to more evaluative research pushed another issue on

to the stage this year – that of ethics, the subject of a half-day symposium. And recognition of the need to take a broader view of educational problems was underlined in the first-ever section on the Third World.

Because the event was timed to overlap with the annual conference of the British Association for the Advancement of Science, also held in Bristol, it was too late in the year for more than a handful of teachers to attend. But the desire to involve more sectors of the educational world, especially teachers, and to encourage more dialogue between the theoretical and practical arms of the profession was clear.

17-plus set to herald 'free market' in examinations



Exam room enterprise zone

A new free market system of school examining could follow the introduction of the Certificate of Pre-Vocational Education, university researchers have forecast.

A paper at the British Educational Research Association annual conference – entitled CPVE: Policy, Practice and Perturbation – conjured up a picture of a supermarket secondary education system complete with bargain offers of appropriate syllabuses for schools or even individual pupils.

Ms Hilary Radnor and Dr Stephen Ball, of King's College London, and Mr David Burrell, of Sussex University, argued that Government support for the Certificate of Pre-Vocational Education and the vocationally oriented Joint Board which administers it could be seen as part of a deliberate attempt to encourage a free market school examining.

The CPVE, aimed at equipping those aged 16 and over with the skills required by the employment market – had brought further education agencies into secondary education at a time when GCE and CSE boards were facing shrinking demands because of falling school rolls.

The significance of the 17-plus could be interpreted in several ways, it was suggested. Set alongside Lord Young's Initiative, it might be a second front in the battle to make the secondary curriculum, or certain parts of it, vocationally oriented. This might go a long way to explain the Department of Education and Science's willingness to go with the CPVE as against the Certificate of Extended Education, the researchers suggested.

They said it could also be asked

whether market forces were being used to make the exam agencies more cost-effective, and whether a free market was being created. "Certainly, the groundwork is being laid for a future pick-and-mix curriculum, which will allow the creation of one-off, tailor-made curriculum packages suited to the 'needs' of individual schools and pupils."

As elsewhere in Government policy, there was a stress on consumer choice and cost-efficiency. "Even the new GCSE examination consortia cannot agree among themselves a standard entrance fee, and budget-priced examining may be a real possibility in the new system."

The authors said the idea of a free market in qualifications would complement proposals coming from the radical right of the Conservative Party for the setting-up of company schools – where firms would tender for a package of establishments.

The conference was told that the CPVE could be seen as part of a move to split the educational system into an academic route through the General Certificate of Secondary Education and a vocational route through the TVEI, the CPVE, and other such courses. But on the basis of a study the authors carried out through negotiation of the debate came through negotiation – the ability to convince teachers and others that the ideas were valuable and in the best interests of pupils.

Encouraging discussion about sex stereotyping was not tantamount to indoctrination, she said, because indoctrination made all other possibilities invisible. In this case, pupils were immersed in a sexist society and a little "countervailing propaganda" could only have a limited effect.

Science for girls: acid test

Feminists question their right to intervene

There is much talk about the need to encourage more girls into science and technical subjects. But Ms Alison Kelly, a University of Manchester sociologist, asked what rights a researcher had to introduce and promote particular values in schools as she offered some "first thoughts" on the ethical implications of the Girls Into Science and Technology project which she co-directed for four years.

GIST was a programme that combined action and research. It aimed at encouraging more girls to opt for science and technical crafts and to find out why girls avoided such subjects. The research team worked from a feminist standpoint. Ms Kelly argued that their right to intervene on one side of the debate came through negotiation – the ability to convince teachers and others that the ideas were valuable and in the best interests of pupils.

Encouraging discussion about sex stereotyping was not tantamount to indoctrination, she said, because indoctrination made all other possibilities invisible. In this case, pupils were immersed in a sexist society and a little "countervailing propaganda" could only have a limited effect.

Julia Hagedorn talks to Hilary Benn about his authority's plan to include fair treatment for homosexuals in its equal opportunities programme

Determined Ealing takes stand on discrimination

After only three months as Ealing's education committee chairman, Mr Hilary Benn is still imbued with the kind of energetic enthusiasm that sees no obstacles in the way of carrying out his policies.

Even the public opposition to Ealing's policy statement on equal opportunities, which has led the Department of Education and Science to query whether it contravenes the authority's legal obligation to provide a balanced curriculum, seems to have left him unmoved. The controversy stems from the inclusion of plans for a fair deal for homosexuals in the package.

In Mr Benn's view, it is just as bad to discriminate against a homosexual as against someone who has a black skin, because they are both things over which no one has any control.

"A significant minority of children will grow up to be gay or lesbian," he says. "It is important to reassure them that they are not some kind of freaks."

But, he stresses, it is not Ealing's intention to ask prospective employees about their sexual orientation. "That is neither here nor there when you are looking for a good teacher."

Nor, he assures anyone who asks, was it ever the intention to sit down with a five-year-old and talk about sexuality. But primary school children's questions will be answered openly and honestly when they arise. "Children's attitudes begin to be formed from birth, and it is important to dispel the myths built up by the negative and often derogatory images of lesbian and gay men shown in society."

Exactly how this will be done is under discussion at present. The Labour authority's policy statement was passed by the education subcommittee at the end of last week and is being circulated to governing bodies and other interested parties. But Mr Benn is confident that it will become official policy at a full committee meeting in December.

'Children's attitudes begin to be formed from birth, and it is important to dispel the myths'

An increase of 11 per cent, or £139,000, on the capital budget has already been agreed for this term to help schools review their books with the intention of throwing out those with a sexist or racist content. Advisers will help schools to come into line with Ealing's declared policy.

It is not simply a matter of banning books, Mr Benn says, but about getting the issues across to teachers. "When we say something is sexist, we are not accusing teachers of being at fault, but showing that the system accepts stereotyping."

Until now, Ealing has had no equal opportunities adviser. Extra budgetary provision has now been made for three new advisory posts to cover the entire age range. This would seem to divide logically into primary, secondary and further and higher. But no decision has yet been made since job descriptions are still being muddled over.

Each school in the borough will have a teacher with designated responsibility for sexual equality. It is not yet decided whether this will mean a scale post with extra money attached, this would have implications for other scale posts. Mr Benn feels that in the primary years, equal opportunities across the full range of the curriculum are as important as anything else. "Yes, even more important than maths or English."

He believes that the whole equal opportunities policy is especially vital in the primary school. "If you don't get it right in the beginning, it is more difficult to sort it out later on."

The authority's policy statement is important, he says, because it shows

teachers where officials stand. "What has been lacking up to now is the backing and overt support of the authority. We have now started the debate but we are asking schools to think through the process for themselves. That is beneficial and necessary."

He is aware that classroom changes do not automatically follow changes in the political control of an authority. A working party will be formed of lay and professional people to help schools write up their own guidelines. And, Mr Benn stresses, there are already schools and teachers who have been thinking out their policies on equal opportunities for some time.

The guidelines are just the beginning of the process. Awareness training will have to follow closely behind.

But the Labour administration is acting swiftly on racial equality. Mother tongue teaching in schools is to be official policy. (Ealing receives over £2 million Section 11 money), the first black middle school head has just been appointed, statistics are to be collected on the numbers and salary scales of black teachers in the borough, and hire charges are being lifted from all premises that are used by community groups for mother tongue teaching.

For Mr Benn, racism, as much as sexism, is about basic human rights – "who is getting a raw deal and who isn't".

With a flash of his father, Tony Benn's, spirit, he says, "It's an important part of the process of change when those who are getting the raw deal stand up and shout about it."



Hilary Benn: equality more important than maths or English

66 Pop stars are just spoiled brats surrounded by sycophants who get drunk and behave appallingly in nightclubs... 99 JOHN BLAKE OF THE DAILY MIRROR

66 He was one great guy, but part of his greatness was that he was not a saint. 99 MCCARTNEY ON LENNON

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66 He warned me off Yoko once. Look, this is my chick! Just because he knew my reputation. 99 MCCARTNEY

66 Blacks got the blues through being kicked around and subjected to the horrors of slavery and whites got 'em by listening to records, boozing, taking drugs and not washing. 99 ON JANIS JOPLIN

66 In the notebooks of New York agents, Lenny Henry is now a name next to which many dollar signs can be doodled. 99 ON LENNY HENRY

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66 John's problem was the heroin. 99 MCCARTNEY

66 Scientists have shown that cocaine can produce a 24 hour erection. But the eventual returns are diminishing, at first you can't get it down, and in the end you can't get it up. 99 ON COCAINE

66 All we ever are are prostitutes or African princesses. 99 CATHY TYSON ON THE CASTING OF BLACK ACTRESSES

66 The world they inhabit is notable for unfriendly animals and sluggish rivers. 99 ON R.E.M.

66 If someone took one of your wedding pictures and wrote 'funeral' on it, you'd tend to feel a bit sorry for the guy. 99 MCCARTNEY ON LENNON

66 If ever a country needed scaring, it's America. 99 AUTHOR ALAN MOORE

66 Half the stuff I do is someone else's idea. 99 BOB DYLAN

66 Joe (Strummer) and I used to write everything together. Then we wrote sitting in separate parts of the same room. Then we got to the stage where we were sending lyrics over to each other through our manager. 99 MICK JONES

66 We are to Virgin what the ravens are to the Tower of London, nobody knows what good we do but if we weren't there is just wouldn't be right. 99 ANDY PARTRIDGE ON XTC

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LAPP-ing up the milk of learning

The Lower Attaining Pupils' Programme is putting life back into learning for hundreds of school children and could have lessons for the whole curriculum.

But the conference was told it was still too often dismissed as a "curriculum for daft kids".

The programme (LAPP), announced in 1982 and now involving 17 L.A.s, is aimed at fourth and fifth-year secondary pupils not taking the 16-plus exam.

It involves improving relationships between teachers and pupils and trying to give pupils more control over their own learning, often in a practical setting.

The conference heard that projects varied considerably because of different funding allocations and the freedom given to local authorities to develop their own approaches. Success was hard to evaluate, but the signs were good.

Hertfordshire achievement project had spawned subject-based courses across the curriculum. Its director, Ms Marjorie Needham, said: "Course

objectives have been drawn up by working parties of teachers from three-quarters of the local authority's schools.

Subject-based courses encouraged pupils to develop skills and discover the processes of learning itself.

"The pupils now talk about what they have done, whereas they would not before," said Ms Needham. "The course gives the opportunity for that kind of dialogue about learning to occur."

A survey plotting the progress of 50 pupils from Manchester's Alternative Curriculum Strategies programme a year after they had left school found great changes in attitude, said Mr David Huxter, of Manchester Polytechnic. He quoted one pupil who said: "It's not like school... you don't want to go school now because you don't know what you'll be missing!"

But the programme still had image problems, according to Ms Penelope Weston and Mr John Farland of the National Foundation for Educational Research. They said: "The curriculum

for daft kids' stereotype, as some critical staff had described it, has lurked within the programme ever since it was first announced and can be found, fleshed out in various aspects, in schools."

It seemed some pupils were beginning to achieve success which they and others could recognize as valid. But it was "hard to hold out against the pressure to succumb to the conventional options – a segmented curriculum for the 'least able' with plenty of 'relevant activity' managed by committed teachers who keep themselves and their problems out of the way of the rest of the school community."

It seems likely that long-term change in learning/teaching approaches will only happen where the lessons learned through the project are applied further down the school as well as across the age group so that strategies for successful learning become the concern and property of the whole community, rather than quick-fire remedies for the last two years of

Q

McCartney

REVIEWED

FREE INSIDE: 56 PAGE REVIEW OF THE BEST MUSIC ON COMPACT DISC

Council snub to union

Bradford Council is refusing to negotiate with the Professional Association of Teachers. A meeting of the authority's education sub-committee has voted to withdraw recognition from the association.

The PAT is now considering a court action against the authority. Assistant general secretary Mr John Andrews said: "Bradford City Council lives in a reality free zone. They have denied democratic rights to the 359 PAT members in the city."

Mr John Lambert, chairman of the education committee, said that it would be had industrial relations to have any dealings with PAT.

Bradford's Labour leadership had originally intended to bar PAT on the grounds that the association was neither affiliated to the TUC nor recognized by CLEA/ST.

But following a paper from Mr Andrews pointing out that three other teacher unions were not affiliated to the TUC, the motion proposing withdrawal of recognition was amended with all reference to the TUC and CLEA dropped.

Courses under threat despite NAB £54 million

by Jeremy Sutcliffe

A number of polytechnic and college courses will be dropped and some departments could be forced to merge under revised plans for 1987-88 adopted by the National Advisory Body which is responsible for public sector higher education.

The threat has come despite an extra £54 million for funding colleges and polytechnics announced at the end of last month by Mr Kenneth Baker, the Education Secretary.

The NAB decided at a special committee meeting last week to lift its threat to cut 9,400 places from polytechnics and colleges next year, even though it is £4 million short of requirements.

Mr John Bevan, NAB secretary, said the committee was grateful for the extra cash but although cuts in the total number of places would not now be necessary, cuts in some courses would still be needed.

Business and management courses could expect increased allocation but others, like the humanities, could be cut back. This is because £15 million from the £54 million package announced by Mr Baker is to be spent on special initiatives he has already identified.

Details of the cuts are expected to be finalized early next year, after consultations have taken place with polytechnics and colleges.



John Bevan

IN BRIEF

School memorial

The London borough of Ealing is to name a school in memory of Bill Peach, the New Zealand-born teacher who was killed following clashes between police and demonstrators at a National Front march in Southall on Easter Monday 1979. The Bill Peach primary is due to open in Southall in October 1987.

New magazine

The United Nations Children's Fund has launched a news magazine which will draw on 40 years' experience of working with youngsters in 117 countries. *Children First*, a quarterly, will be sent initially to 40,000 readers in schools, churches, youth organizations and other fund-raising bodies.

Musical tour

Nearly 200 Northamptonshire school children took their musical instruments, props and costumes to Germany to give four performances at Smetana's *The Bartered Bride* last month. The trip, which followed a tour of *Carmen* in Germany last year, ended with an open air performance at the medieval town square of Benneke.

Satellite classes

Pupils in Devon will be able to improve their foreign languages by satellite systems to receive television broadcasts from overseas. The project, part-funded by Devon L.E.A., involves seven schools which will initially receive broadcasts from Europe and the US.

Computer contest

A new annual computing competition for secondary school pupils in Hereford and Worcester has been announced by ISTE Ltd, one of Europe's biggest computer and software firms, in conjunction with HM Inspector for Information Technology. The competition will offer prizes including books worth £250, computer music systems, graphics and video software.

Degree sponsorship

National Girobank is to sponsor three undergraduates a year in their university career from October 1987. The students, who will be selected by tests and interviews, will take the three-year honours degree course in banking, insurance, and finance at the University College of North Wales, Bangor. Fees will be paid by the bank, and the students will spend summer vacations on work experience with National Girobank.

Revision help

Distance learning specialists at the National Extension College have launched a new revision service to help students who want to resit A levels in English, economics and sociology. Details can be obtained from the National Extension College, 18 Brooklands Avenue, Cambridge CB2 2HN.

Jobs study

A study of young people's access to employment in OECD countries is being carried out by Dr David Marsden, of the London School of Economics and Political Science, in conjunction with Dr Paul Ryan, of King's College, Cambridge. The research is funded by the Joseph Rowntree Memorial Trust.

Poster campaign

A display poster, produced by the National Youth Bureau, aims to explain to young people the complexities of new initiatives such as TYE, CPVE and YTS in simple language. Copies can be obtained from the Sales Department, National Youth Bureau, 17-19 Albion Street, Leicester LE1 6GB, price £1.25 including VAT.

Poly course

Middlesex Polytechnic is running a part-time course in management training for owners and managers of small businesses. The course, funded by the MSC, will include company visits, groupwork, and the development of finance, marketing, operations and personnel skills. Details of the course, 'Action Learning for Managers', can be obtained from Admissions Enquiries, Middlesex Polytechnic, 114 Chase Side, London NW4 3PN.

PRIMARY



Gillian Pugh: enormous energy

Julia Hagedorn talks to the head of the new national centre for the under-fives

Using an umbrella to paint a nursery picture

Ms Gillian Pugh has a formidable task in front of her. As head of a newly-established national centre providing advice and information on the under-fives, she has a list of objectives that could keep her three-woman team occupied for 24 hours a day during its initial three-year period of funding.

Ms Pugh is not one to be daunted by this prospect. With a background in academic research, as well as experience at both the senior management and practical level, she is well-qualified to make the necessary decisions. She is also highly respected in the under-fives' field and has enormous energy.

The Under-Fives' Unit was set up in May and is funded by a £250,000 grant from the Department of Health and Social Security. It was originally thought that one of the posts in the unit might be financed by the Department of Education and Science but Ms Pugh is now hoping the DES will provide funding for specific projects.

She is optimistic that the unit, as an umbrella organization, will be able to cut across departmental barriers and

'We see ourselves as catalysts. We encourage people to ask questions.'

act as a neutral forum where the DES and the DHSS can get together to discuss policies.

In the three months that the unit has been in existence, the co-ordination of under-fives' provision has been the main issue, worrying the local authorities who have been in touch with the unit.

Ms Pugh has sent out a letter to every authority in the country asking for information on the availability and type of provision for the under-fives in their area. Only when a national picture emerges, she says, can a case be made for more provision.

As more and more authorities are beginning to re-think their policy on the under-fives, the unit also needs a national picture to be able to put managers in touch with each other. But Ms Pugh is aware that it is part of her job to understand what is possible in a well-resourced urban authority with exciting innovations as well as in shire counties where the main demand is often for playgroups that will cost the authority relatively little.

"We don't give the National Children's Bureau gold seal of approval," she says. "But we do have to satisfy certain standards and point the way to a model that will provide some guidelines. We see ourselves as catalysts."

We encourage people to ask questions.

The unit cannot be seen as a political pressure group, but there are times when Ms Pugh feels she has to take up a public stance. "But if we were to ask for free provision for everybody, that would be irresponsible and nobody would listen."

But she does feel that where the unit is aware of the way Government thinking is going, it would be a wasted opportunity not to try and influence the outcome.

If the unit is to have a significant impact on the under-fives' field, it must make practitioners, as well as policy-makers, aware of its existence. Not an easy matter with a team of only three. Consultancy, as Ms Pugh is aware, helps only a few people at the expense of much of the unit's time.

She would like to see an annual review of provision for the under-fives; any new legislation or practices would be included. She would also like the Policy Studies Unit to have a look at how legislation affects the under-fives and their families.

Another important side of the unit's work will be in the area of research. Ms Pugh clearly feels that at present there is some wasteful duplication of research on under-fives. She would like to see the unit consulted before a major funding body gives the go-ahead to a researcher.

She also feels that practitioners are often frightened of making use of available research. She wants findings to be made much more accessible, either by wider dissemination or by devising a series of exercises that help individuals to use the research in their own schools.

There is no tradition at senior management level of spending time on the under-fives. Officers at this level are watching the unit with interest. As one of its first clients, Stephen Corlett, senior policy research officer in Cambridgeshire, said: "It's extremely difficult in a local authority to get any national information at all. It's even more difficult to know if something written on a piece of paper really adds up to something or whether it has been written down by a bureaucrat with nothing else to do. It's invaluable to have someone who can interpret that piece of paper for you."

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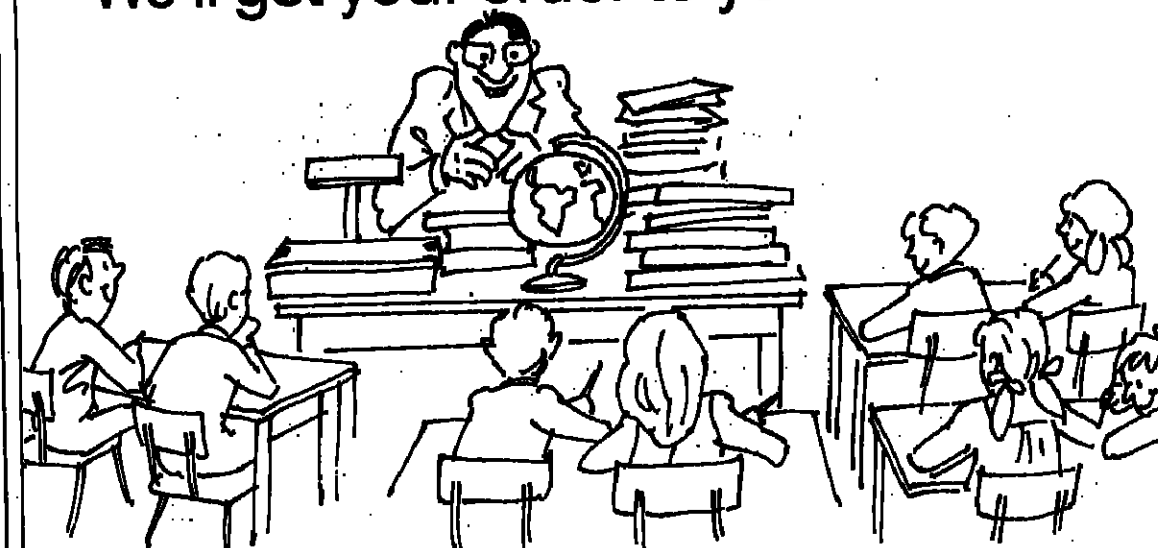


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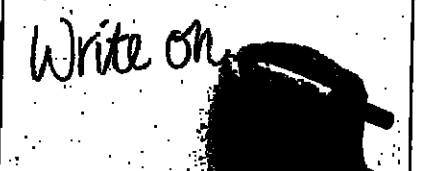
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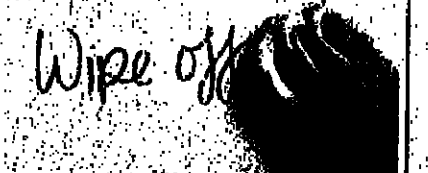
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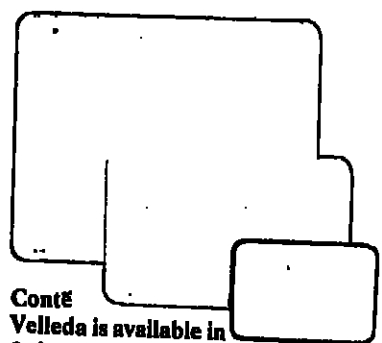
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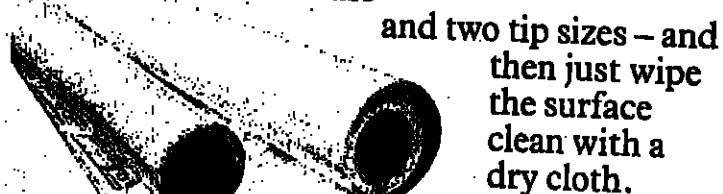
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Take your partners, please - the audience joins members of the Covent Garden Minuet Company in the Waldegrave drawing room of St Mary's College.



Stately homes - making a present of the past

Sue Surkes attends a course designed to help bring history alive for pupils

Peter Thorogood has just bought St Mary's, a 15th-century stately home in West Sussex whose attractions include a painted room said to have been decorated for the visit of Elizabeth I. It will open to the public next April and to schools later on.

At a time when some historic house owners are said to be breaking under the financial strains of their estates, his enterprise is, as he describes it, "pioneering". More importantly, perhaps, it reflects the growing demand to learn about Britain's heritage.

Mr Thorogood was one of 70 people who attended the second conference course of the Heritage Education Trust - a charitable body that aims to promote the educational use of heritage properties and sites.

It was set up in 1982 from an idea by Commander Michael Saunders Watson, president of the Historic Houses Association and owner of Rockingham Castle in Leicestershire.

Those attending the course at St Mary's College, Twickenham, included teachers, historic home owners and museum officials.

Its theme was the historic house - a forum for education and the arts. It offered a fascinating insight into the way heritage education for children had moved away from the "dull charts and documents" approach towards making historic properties bring the past alive.

Role play was one method on display. The conference was shown a video of schoolchildren in period garb being addressed by a Queen Elizabeth I lookalike in an event staged by the Young National Trust Theatre.

Mr Patrick Phillips, owner of Kentwell Hall in Suffolk, described the re-enactments of Tudor domestic life he has put on which attracted children from 300 schools. "People come out of a wish to see another age, but on a broader scale," he said.

Northamptonshire County Council's commitment to heritage education was enthusiastically detailed by one of its senior inspectors, Mr David Hills.

The council secures a full-time teacher education officer to Lampport Hall and stresses, as a matter of policy, the importance of children understanding their immediate environment.

The idea of recreating an atmosphere of the past by blending arts with architecture came across strongly at the conference. And the point was underlined by a performance by the Kent Opera and a minuet ball in the impressive Gothic surroundings of the college's 19th-century Waldegrave drawing room.

The Heritage Education Trust is closely involved in the maintenance and monitoring of educational standards. It administers the Sandford Awards, sponsored by British Leisure Publications, given to Heritage properties providing special educational services and facilities within the trust guidelines.

At the conference dinner, Lord Elton, environment minister, announced three new award winners: the boat museum at Ellesmere Port in Cheshire; St Albans Abbey and Castle, Hertfordshire; and Wightwick Manor, Wolverhampton.

Lord Elton, a former teacher, said that growing public awareness of Britain's heritage was enabling the Government to extend a "reasonable degree" of protection to historic buildings.

The Heritage Education handbook, edited by the trust's honorary director Mr Marilyn Dyer and launched at the conference, contains the views of experts about progress made and information about initiatives developed by Sandford award winners.

From next year, those working in the heritage field - country houses, museums or tourism - will be able to attend a heritage management MSC diploma course at Birmingham University.

Ms Sue Millar, the newly-appointed lecturer, told The TES that students would be able to compare the approaches used by private, charitable and public sector bodies.

In Scotland a historic properties project called Insite has been launched. Based at Edinburgh University, it will offer re-training for those, especially guides, on the public relations front line.



Saving face at the Minuet Ball

London sites contest

Superstites, a competition enabling children to develop an interest in the lesser known historic sites of London, has been launched by the Department of the Environment.

Competitors aged up to 17 must submit either a wall chart or guide based on first hand observation of one or more of 12 chosen properties.

The sites include the royal palaces of Eltham, Kensington and Kew, Edward III's tower at Westminster, the 18th-century houses of Chiswick, Kenwood, Marble Hill and Osterley

Park and Syon House, home of the Earls and Dukes of Northumberland.

The competition was launched by Lord Elton, who said: "The object of Superstites is to introduce children to major historic buildings in London which are not as widely known as they deserve to be and to encourage them to explore the tremendous educational opportunities they offer."

Prizes include a collection of books and guides for the school library. The competition closes on November 28.

SCHOOL TO WORK

Smaller curriculum role seen for FEU

The Further Education Unit, the autonomous Government-backed agency which watches over curriculum and practice in the colleges, needs to be cut down to size, according to a Department of Education and Science paper published this week.

It says that the growing contribution to curriculum development from other organizations does not make the FEU's functions redundant, but that it is doubtful that the unit needs to go on being as big as it is.

The paper seeks the views of further education interests on the future of the unit, which has 42 professional and administrative staff and gets Government grants totalling £3.5 million a year. It sets out four options, three of which would mean the loss of the unit's separate identity, and none of which would allow it to go on doing as much work as at present.

The paper says at the outset that the traditional system, under which the curriculum is determined by the examining and validating bodies and by the college teachers themselves, is the responsive primarily to specific student or employer demands.

The DES adds that the system has found it difficult to adapt to those students who have not yet made a vocational choice and to the needs of full-timers preparing for employment; to develop cross-curricular approaches to support general education; and to meet the requirements of specific groups like the ethnic minorities and students with special needs.

"These deficiencies point to a continuing need for a central capability to stimulate and undertake FE curriculum development which, while taking account of the work already increasingly being undertaken by other agencies, is examining/validating bodies, HM Inspectorate, i.e.a. advisory services, MSC, the Further Education Staff College, and, in future, the National Council for Vocational Qualifications), can operate both at and above the level of the individual course and the individual institutions."

The DES says that although the activities of these other agencies are increasing this does not make the FEU's functions redundant. "They constitute a radically new context within which the department considers the time ripe for a review of the FEU and its future", it adds.

Four options it puts forward are: ● Retaining a "freestanding" but possibly smaller FEU; ● Merging with another curriculum research/development body; ● Merging with the NCVQ, or ● Merging with the Further Education Staff College.

The DES concedes there is a case for a body concerned specifically with FE curriculum development, but says that the NCVQ's necessary activities will have a direct impact in this field, with the danger of confusing and expensive duplication.

So the FEU would probably have to be smaller than at present, but that might make it difficult for it to employ a wide enough range of expertise.

The DES pours rather more cold water on the idea of merging the unit with one of the bodies already involved in aspects of curriculum development, like the Schools Curriculum Development Committee, the National Foundation for Educational Research, or the MSC's standards of assessment support unit.

It admits that such a move could offer some scope for rationalization but it argues that it would suffer from the drawbacks of the first option in requiring big changes in the remit either of the unit or the host body.

Merger with the NCVQ, warns the DES would mean giving up the capacity for curriculum development specific to the FE system, as distinct from vocational and training generally. There would be a risk of the NCVQ (which answers primarily to the Department of Employment rather than to the DES) becoming "unwieldy and dominant," and it would have no responsibility for the institutional aspects of FE which would have to be transferred to the staff college.

Staff development functions, too, would have to be passed over to the staff college or other agencies.

The option that the DES indicates it prefers is a merger with the staff college, which it says would avoid most of the drawbacks of the other choices. The department claims that this

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Joslyn Owen

YTS producing few girl mechanics

The Youth Training Scheme reflects rather than challenges the sex division of labour in society, despite Manpower Services Commission claims that it is breaking down such divisions, a study has found.

Not only are girls and boys reluctant to try out courses not usually associated with their sex, but are positively discouraged from taking risks by the difficulty of finding jobs.

The study, carried out by Christine Eden and Keith Aubrey, of Bath College of Higher Education, centred

Edited by Mark Jackson

on 63 YTS college students on a variety of courses ranging from community care to engineering. The findings were presented to the annual conference of the British Educational Research Association held in Bristol.

The research confirmed the MSC's own statistics which showed women to be concentrated in traditionally female occupations.

"For many young people, experience of less stereotypical tasks on YTS is too late... There are many pressures acting against a young woman choosing a motor vehicle training

scheme when she has no qualifications which she sees as relevant and precious little experience," the researchers say.

Attitudes apart, the economic recession and the rise in unemployment had been "central in preventing much of the MSC's rhetoric about YTS as a period of experimentation for young people from becoming a reality."

Youngsters felt under pressure to find work as soon as possible and many of those in the study saw the scheme as a way of proving their capacity for hard work. "In this context it is unlikely that young people will see YTS as a chance to experiment at their leisure with different forms of work and training," the report suggests.

"The sharp vocational focus on all the schemes we investigated and the lack of opportunity for tasting other, radically different forms of work would make this difficult anyway, even if the young people wanted to do this and we found little evidence of that."

Ms Eden and Mr Aubrey conclude: "As long as YTS functions as an orderly bridge from school to employment and as long as its main aim is to equip young people with the skills and attitudes favoured by employers, it is unlikely that it will challenge gender stereotypical work roles in any effective way."



Research provided yet more evidence of the concentration of women in traditional occupations.

British TELECOM

BT 'pulls plug on training'

British Telecom is trying to get out of providing technical training for its staff, it was claimed last week.

The privatized company has taken on only 37 apprentices this year compared with the 2,100 recruited by its nationalized predecessor, Post Office Telecommunications, five years ago, Mr Spike Wood, the president of the National Communications Union told the TUC's annual conference last week.

"Now that it is a private company solely dedicated to the pursuit of profit, BT has totally abandoned the social responsibilities it once had as part of the public sector," he said.

The company's management had said it did not see itself as having a national social responsibility for providing technical training for young people, Mr Wood claimed.

Instead, BT was trying to recruit skilled adults from outside the company, he added.

Mr Wood pointed out that British Telecom, by far the largest company in the "sunrise" electronic communications sector on which the Government was relying for economic recovery, was depriving the country of a vital pool of technically trained labour.

Mr Jack Mansell, the unit's chief officer, points out that it already has enough work in the pipeline to keep it busy for three years and that the growing demands for colleges to do more and do it better, including pressure from the Government itself, means they will need all the help they can get from the FEU and everyone else.

Mr Joslyn Owen, Devon's chief education officer, who is chairman of the management board, has submitted a paper calling on the board to reject all four of the DES options and to demand that the DES leaves the unit as it is.

The new BBC School Radio Secondary Series

Your first priority for the new term

Be sure to start the new term with a series of BBC School Radio programmes designed to stimulate your pupils' interest in a number of social areas.

TAKING SIDES

Secondary Monday, Tuesday 15, 16

September 11.40 am - 12 noon (not Scotland).

All about teenage life and growing-up,

the series invites informal discussion among

groups or classes of 11-13-year-olds, in which

pupils can talk about their own ideas and

experiences in response to those of others.

TUTOR GROUP STARTERS

Upper Secondary, Monday 15-Wednesday 17

September. 11.00 am - 11.40 am.

Steve Blacknell looks at personal

relationships, health education, the environ-

ment and self-evaluation. The series sets out

to discover more about how we feel and

react in different situations, and why.

HELP YOURSELF: ARE YOU SPEAKING PROPER?

Night-time broadcast 00.30 am - 01.10 am.

Friday 14 November (four 10-minute

programmes).

In this, the latest in the Help Yourself

series, pupils can gain valuable advice and

practical help in improving their conversa-

tional skills on the telephone, in public

speaking and at interviews.

INDUSTRY YEAR

Night-time broadcast 00.30 am - 01.10 am.

Monday 13-Wednesday 15 October.

Glyn Worsnip presents six 20-minute

programmes, two a night, which look at

some realistic problems encountered by

adults at work. A useful starting point for

students on the 4-year TVEI course,

the series looks at research, production,

development, communications and

marketing.

BLACK BRITISH

Upper Secondary, Monday 15-Friday 19

September. 2.00 pm - 2.30 pm.

Five dramatised biographies of the

lives and times of distinguished black men

and women are reviewed by people working

in the same fields today.

SAFETY FIRST

Upper Secondary, Wednesday 17-Friday 19

September. 11.40 am - 12.00 noon.

Three pairs of programmes using a

mixture of drama and interview to examine

the cause and effect of accidents in the

home, at work and during play.



REMEMBER: Night-time Broadcasts may be recorded for educational use. Set your time switch for half past midnight.

Send a s.a.e. for a schedule of all broadcasts to: BBC School Radio Enquiries, 1 Portland Place, London W1A 1AA.



Getting out rather than getting on

Fifteen years ago Danish primary teachers earned about 50 per cent more than skilled workers. Today the two groups' average incomes are almost identical.

It is not only primary teachers, however, who have lost ground. As Erik Prinds, a spokesman for upper secondary school teachers recently wrote: "What are the prospects for the average 40-year-old secondary school teacher? Very depressing indeed."

"You cannot move to another school because your seniority may put other teachers out of work. And most of us have difficulties finding a job outside teaching because of our specialised academic studies. If you wish to become a headteacher the outlook is very poor."

Mr Prinds also said there was a risk of teachers being sacked in the early 1990s because of falling rolls. "And all

DENMARK

Esben Andreassen reports that it is not only British teachers who feel they are underpaid and poorly regarded.

of us can imagine the staff-room in about 10 years with all the same colleagues and no new blood."

Add to this the fact that many teachers feel their prestige is low and it is no wonder that many teachers seek other employment.

In Aarhus, Denmark's second city, 40 teachers have left the classroom in the past two years. A survey has shown that the majority of them were men aged between 30 and 35, most of whom were former chairmen of teachers' councils or shop stewards.

Unsurprisingly, there is now a shortage of students willing to embark on a teaching career. And whereas future teachers used to be among the top third of the class 10 years ago, the training colleges today have to take all those who apply - even those who nearly failed their exams.

Another worry for the ministry of education is that 70 per cent of the students enrolled in the training colleges are women, whereas five years ago there were equal numbers of men and women.

Sten Poulsen, a lecturer at Copenhagen University who is working on a book about teachers' personality, describes the changes in the social character of teachers as from "submissive adaptation, through rebellious self-confidence in the 1960s, to confusion, insecurity and despondency in the 1980s".



Falling rolls could lead to teacher-redundancies

To each according to his teaching abilities . . .

New York casts its job net across the Atlantic

UNITED STATES

Bill Norris on a controversial new method of rewarding classroom performance

Teachers in Virginia's Fairfax County, who have been operating a "go slow" policy for the past nine months over a pay dispute, may soon become the first teachers in America to be paid on the basis of their performance in the classroom.

Under an agreement reached between school officials and the Fairfax Education Association, which represents more than 6,000 of the county's 8,300 teachers, all teachers will be rated on a five-step scale.

Those found to be ineffective will be fired. Marginal performers will get a small annual cost-of-living rise, and competent teachers will get both cost of living and merit rises.

This could lead to outstanding teachers with at least six years' experience being paid salaries of \$64,000 (\$42,000), which is \$20,000 more than it is possible to earn at present.

The new scheme is scheduled to come into being in 1989-90, though the local school superintendent, Robert Spillane, wants to enact it almost immediately.

It will be preceded by a rise of 12.1 per cent next year, and two more annual increases of 5 per cent. Starting salaries next year will be \$22,000 (\$14,500).

The package will cost taxpayers nearly \$100 million over the next three years - the price, said school board officials, for getting teacher consent to the merit pay plan. However, the school board itself is rumoured to have doubts about the cost, and efforts to trim it may yet torpedo the deal.

Mimi Dash, president of the Fairfax Education Association, called the agreement "historic".

"It means," she said, "that teachers can build careers and be rewarded for their excellence without being pulled out of the classroom."

Others are not so sure. Rick Nelson, president of the 900-member Fairfax Federation of Teachers - which was not involved in the negotiations - said: "We won't accept it."

Virginia law prohibits teacher strikes, and does not grant teachers the power of collective bargaining.

Money alone is not enough to cure a chronic problem of bilingual education in New York City. Although the city government has given the citywide bill an extra \$9.5 million (\$6.1 million this year to hire 665 new bilingual teachers, nearly two-thirds of the post were still vacant when school resumed last week.

About 12 per cent of New York's 931,000 schoolchildren do not speak English. All of them are entitled to bilingual education, learning English as a second language but getting instruction in their own tongue. Fewer than half actually get it.

This fact is blamed for the extreme high drop-out rate among Hispanic students, who form the majority of non-English speakers. Eighty per cent of them fail to graduate from high school. This is more than double New York's overall drop-out rate, which itself is nothing to be proud of.

The greatest need is for Spanish-speaking teachers. Edward Aquilino, executive director of the board of education's personnel division, blames the shortage partly on the state's strict licensing standards. Bilingual teachers are required to have 24 credits in bilingual and bicultural education courses, and such people are hard to find. These standards are to be relaxed, allowing teachers to take the bulk of the credits while on the job, but not until next year.

In the meantime, many bright young Hispanics who might have gone into teaching are being lured into better-paying jobs in private industry.

In desperation, New York has been trying to recruit teachers from Spain. Last year the city succeeded in attracting 82. But when the recruiters went back this year, they found themselves in competition with schools in California who are having similar problems, and the prospect of sunshine seems to have won out. This time they could only attract 50 volunteers.

Long, bumpy ride for seat belt Bill

After more than two decades of argument, New York State has finally decided that all new school buses must be fitted with seat belts.

But, ironically, the seat belt Bill, signed by Governor Mario Cuomo, stops short of requiring that children actually use them, and says nothing about the conversion of existing buses, which are used by two million students every day.

The measure, which will take effect next year, has been adamantly opposed by school boards and bus operators, fearful that they would be held liable in lawsuits if a student was injured while not wearing a seat belt.

The new law exempts them from liability, but it leaves another worry unanswered: the possibility that New York's turbulent and inventive schoolchildren might find another use for the belts.

State Senator Joseph Bruno predicts that before long they will be using them as weapons. "You ever watch young people on a bus?" he asked during the debate on the Bill. "They're punching each other, but half the time



The drop-out rate of Hispanic children is extremely high

Harry Potts reports on how Tripoli's British School has survived the past year in Libya

Classes go on, even after a shell hits the Wendy House

British parents working in Tripoli tell reporting reporters: "No comment on our school." Discretion is especially justifiable in Libya in things to do with the welfare of expatriate children. But perhaps some tales out of school can be permitted now that the school year is over.

The British School is in a large villa in a one-way street in a residential area of Tripoli. The concrete playground at the rear is overshadowed by stately date palms. Vines cover the walls with black grapes and white grapes, and there's a Seville orange tree. Inside, the rooms are pleasant and air-conditioned and classroom walls are covered with children's work.

The headteacher of the school lives on the premises. The age range of pupils is three-and-a-half to eleven. There are no boarders. A British curriculum is taught by British teachers. There are no Libyans in the school, since it is a school for expatriates. Policy on this and on most other matters is made by the management committee of British parents, with very little interference by the Libyan authorities, as long as trouble is avoided.

As a result of the determination and discretion of the committee, the story is of contraction but not closure. In two years, the British School has shrunk in enrolment from 100 pupils, with places reserved for British children and Commonwealth children, to 20 to 30 pupils, mostly non-British. Many British families left after the bombing in April. So did most of the teaching staff and the school secretary.

In May, the nursery school building, several blocks away from the main school, was closed down permanently. The school cut short its summer term, finishing on June 5. Some parents objected to this, but others, including teachers who had kept things going, were more than ready to pick up and go off on holiday. All being well, however, the school was expected to open again as usual this month.

It was close. The American bombers came very low over the villa. Seconds later the school was shaken to its foundations over and over again by explosions. There was not much to see from the flat rooftop. It was soon over. No parents bothered to telephone for several days. It was obvious that children should stay at home.

After a week, school opened again. That week had not been uneventful, with more explosions and Libyan gun fire at night. And there was an incident in the playground. The school's Wendy House became, as the Consul put it, "the only British casualty". A small Libyan shell came down through the metal roof, then through the plywood floor and landed - unexploded - in the sand pit.

The offending object, after being inspected by a full meeting of the management committee and photographed from several angles, was dis-



Libyan boys contemplate destroyed homes

posed of by a Libyan neighbour - a colonel. He kindly had the whole sand pit thoroughly checked with a metal detector. Ripe dates are not the only things that can drop from the sky. The children asked questions about the mysterious holes.

"Sometimes we have the honey and sometimes the vinegar." That was the surprisingly mild comment of Dr Mohammed Tayeb, the Libyan director for foreign schools in the People's Secretariat for Education. He held the power to close the school. A year ago he had warned the school management committee in no uncertain terms. The new committee chairman and the headmaster were put on the mat like naughty schoolboys.

Parents' complaints had reached him. There had been a struggle for power on the committee, controversy over fee increases and a period of sloppy administration. Reproof came from Dr Tayeb: he accused the British School of arrogant colonialist attitudes and a lack of respect for Libyan law. This was at the time that four Britons were in detention. Hastily, nervously, school socks were pulled up, but it took six months of hard work to put things in order and to restore good relations with Dr Tayeb.

What is it like for expatriate children living and going to school in Libya? Admittedly, there are some undesirable influences and a lot of tension but that is also the case at home in the UK and in other parts of the world. In Libya, parents and teachers work hard to compensate for the disadvantages and to provide a healthy environment for children.

And, for those expatriates who are prudent, Tripoli is a peaceful enough city. There has been no damage to the school by vandals and no theft although the school gates are not locked.

To my knowledge no child of the school has been molested or threatened. But two things come to mind, more bizarre than serious. On the first day of the summer term a dead rat was put in the school drive. The children made no fuss. The school committee chairman was on hand with a large shovel and promptly dealt with it.

The headmaster's wife took some photographs of hibiscus and oleanders in bloom in front of the school. Two passing Libyans decided to make a citizen's arrest. The situation was tense for several hours with a visit to the police station, questions, written report and temporary confiscation of the film. It ended peacefully but it was not a pleasant experience.

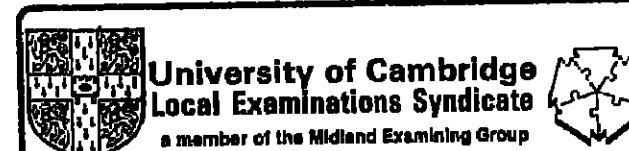
There is a risk that any incident of this sort could escalate. But usually things like this affect parents more than children. If parents can cope with them the children are not troubled. But if parents succumb to anxiety with deep hostility towards the host country, then the children suffer and it is wiser for the parents to move on.

Does it make sense to reproduce exactly in Libya a British curriculum for British children? For that is what the school does. Arabic lessons take place, as required by Libyan regulations, but topics work on the desert, oil production, dates and olives, the antiquities of Leptis Magna and other things Libyans are rare. Instead, the choice is for Guy Fawkes Day and a bonfire if the Libyan police give permission. The school has cricket and Scottish country dancing. Christmas and Easter are celebrated with traditional British trappings. British teachers and parents in Libya work with dedication to make the thoroughly-going little British expatriates of their children in Tripoli.

Non-British pupils in the school from countries such as Hungary, Egypt, Pakistan, Turkey and Uganda, now in the majority, are carried along in the wake. But probably no pupil is seriously disadvantaged by nationally prejudiced curriculum content choices. Parents do, after all, have alternatives - there are other national schools and an international oil company's school available for their children if they want a different curriculum.

Schools like the British School Tripoli could, however, do more to promote international understanding. In Libya, expatriate children have limited opportunity to be friends with Libyans and understanding needs to be worked out in practice through friendships. They cannot be taught to children theoretically. It would be good if more opportunities for this could open up in and out of school. But at least the school is there and is a happy place where children feel free and secure. In a troubled country, that is something good to build on.

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UAO 55

Women's rights carried Abortion Act

Sir - I have read with interest Gillian Peele's account (TES, July 18) of the film made for The Responsible Society, and the fact that the commentator in it apparently remarks on the "fear of excessive population growth in Britain" that was supposedly "an important argument in securing the passage of the 1967 Abortion Act".

As a member of the national executive committee of the Abortion Law Reform Association throughout the 1960s, and as author with Keith Hindell of *Abortion Law Reformed* (1971), the history of the political campaign to reform the British abortion laws, I would like to put on record that although taking the world-wide population crisis very seriously in an international context, there were only two issues that in fact carried any weight in the domestic context of the 1960s.

One was the growing recognition that fertility decisions were essentially private decisions, and no business of judges, policemen or priests. The second was a growing anger that working-class women were dying and being injured through being forced to have unwanted babies, while middle-class women could purchase safe abortions at will.

The former issue is nowadays incorporated into the slogan "A Woman's Right to Choose", though we had not formulated it in quite those

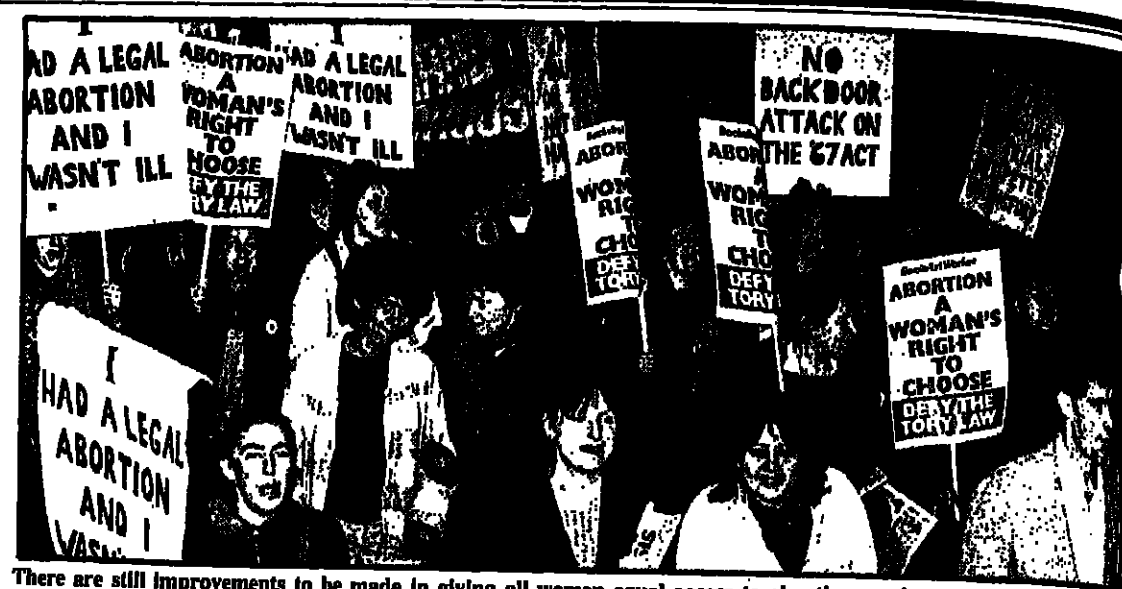
terms 20 years ago; the latter issue was a simple one of social justice. In the early 1960s when the political campaign was at its height, between 50 and 60 women died as a result of abortion each year. In 1984, only four did so.

So this aim at least seems to have been largely achieved, even though there are still improvements to be made in giving all women equal access to abortion services.

It is indeed a triumph that the births of 2½ million unwanted babies have been averted since the passing of the Abortion Act in 1967. The reason we rejoice is not because we wished then or now to "control" the population but because we wish to liberate women to determine their own lives as far as is possible.

Even women in Eire, the most sexually repressive country in Western Europe, which presumably conforms to the ideals of The Responsible Society, are coming to Britain in droves for legal abortions denied them in their own country. Since the passing of the British Abortion Act, nearly 40,000 Irish women have come here to obtain freedom from unwanted pregnancy, and they are now coming here for this purpose at a rate of nearly 4,000 per year.

MADELINE SIMMS
17 Dunstan Road
London NW11



There are still improvements to be made in giving all women equal access to abortion services.

Irresponsible

Sir - Your reviewer of *The Great Population Hour* video (July 18) seems to have taken the views presented in it at face value.

Your readers should know that this lengthy and somewhat tedious video amounts to little more than the latest in a series of assaults by an organization calling itself "The Responsible Society" on the work of the International Planned Parenthood Federation (IPPF) and its UK affiliate, the Family Planning Association.

The video's central thesis is that there exists no less than a global conspiracy to reduce Third World populations, in particular, by means of spreading information about contraceptives and sex education to cultures not readily receptive to these.

Family planning associations are charged with being anti-children and even racist. The video suggests their greatest "success" has been in Europe,

where women's emancipation is most developed and where they are claimed to have brought about an "alarming" reduction in numbers in proportion to global population. The IPPF and its member associations are accused of plotting similarly to impose population control on the rest of the world.

The method allegedly used to achieve this fantastic objective is systematic destruction of family authority through the promotion of sex education. Now we gain some insight into the real preoccupation of the producers of this video: the management of (British) teenage sexuality.

But whatever the misguided motivation, it remains as absurd to infer that family planning associations have the power - or the will - to undermine the family unit as it is to suggest they can create a global demand for contraceptives (rather than simply responding to that demand).

The video overlooks the fact that IPPF's 104 member associations are voluntary, autonomous family planning groups nurtured by grassroots

demand in each of the countries they represent, and that these member dictate policy to IPPF, not the other way round.

In fact, family planning associations are concerned with educating individuals in responsible sexual behaviour, preventing abortions and unwanted pregnancies and promoting personal freedom to plan families.

While misleading material such as this video may help provoke national discussion - in the classroom or elsewhere - of sexual and contraceptive rights, it remains totally unacceptable to link voluntary family planning organizations with Nazism, as this video does, through a crude representation of their histories, structures and purpose.

PHILIP MEREDITH
Programme Officer
IPPF Europe Region
Regent's College
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London NW1

Restructuring

Sir - Recent correspondence on the Acas pay settlement has quite rightly concentrated on the inequitable pay increases recommended for Senior Teachers and those on Scale 4. However, it is unfortunate that the debate has focused on the two issues of fair increases for all teachers and the need for a radical restructuring of teachers' pay.

As a member of SHA I reject the assumption underlying Peter Snape's letter (TES, August 22). The inference to be drawn from his comments, and from SHA's stance at Acas, is that the successful management of schools can only be achieved through a hierarchical structure of roles, responsibilities and salaries.

The influence of this view on the pay settlements is evident and regrettable. Rather than all make a decisive move towards a collegial structure, the Acas proposals have produced a fudged response with two levels of Principal Teacher above the Main Professional Grade. It will be the retention of these differentials that will prevent the profession from adopting the team-based co-operative approach to teaching and learning required in our schools.

But what of Senior Teachers? Clearly, vested interest cannot be allowed to stand in the way of change but why not a phased absorption into the Main Professional or "single" Principal Teacher grade? Such an approach would ensure just recompense in the short-term yet not prevent the radical restructuring of pay needed by the profession.

JOHN WILKINS
Co-director
Stantonbury Campus
Milton Keynes
Bucks

Equal rights

Sir - Geoffrey Partington has a problem (TES, August 22). It all hinges on definitions of equal opportunity and discrimination.

He looks for fairness but fails to recognize that what is judged as fair and just in any age is socially determined. The arguments of the National Association of Schoolmasters in the 1930s that "it is impossible for a man to serve under a woman and retain his self-respect and manhood" and that the family breadwinner (questionably male) should earn more than a woman doing comparable work (who was either unmarried or had a husband to support her) were accepted by many to be fair and just.

Different social conditions and more egalitarian principles are now gaining acceptance so that "equality of opportunity" may include a commitment to reduce sex-stereotyping (MSC criteria for the Technical and Vocational Education Initiative) and may be extended to equal parental responsibility for the birth of a child and equal nurturing on the part of father and mother.

If one accepts that a particular group has suffered discrimination in the past as a result of attitudes and values, many of which persist in some form today, then one cannot achieve equality for this group without some form of positive action, which some will call "reverse discrimination". In South Australia, the preferential appointment of a woman is recommended only "over equally experienced, qualified and eligible men".

Where women are in competition with men for employment any support for the former will discriminate against the latter. It is only where the numbers of men are inadequate that positive action for women escapes criticism.

Partington himself recognized this in 1976 publication: "The Sex Discrimination Act is a worthwhile legacy of 1975. International Women's Year, but women teachers will err profoundly if they believe that legislation alone will enable them to hold the ground they have gained in the exceptionally favourable employment conditions of the last three decades, let alone extend it."

Partington has changed his position more than a little in the intervening decade so that women's use of the legislation in the courts has become part of a "discrimination industry" in which "fair and scrupulous weighing of relevant evidence is rarely found" and the only principle is "to secure more top jobs for one's own constituents".

To the observer, Partington's virulent outpourings (see also TES, June 6) are reminiscent of those of the NAS and its sympathizers of earlier days. Perhaps he has become influenced by the more chauvinistic milieu of Australia where the term "feminist" is frequently used pejoratively (as I found during a visit earlier this year) and where the solution to a shortage of personnel is to open up immigration doors.

Moreover, in making comparisons across time and cultures, Partington is guilty of just the practice of which he complains - not comparing like with like - and of being a naive sociologist.

Dr JAN HARDING
18 Meadowbank Road
London NW9

Letters should be as brief as possible and typed on one side of the page only. The Editor reserves the right to amend or cut letters where necessary.



Free at last

Sir - Reference the article "Off the record" Jim Weir on school and pop (TES, August 29). I have never seen schoolchildren of any age or sophistication great and dance, cheer, salute, stamp their feet or generally blow their crusts to Alice Cooper's *School's Out*.

School's out for summer
School's out for ever
School - is - out - completely
at any end of term/year/social function with a quarter of the enthusiasm and approbation (if not outright frenzy and ecstasy) with which it has been received by the teaching staff of the school.

FRANK KITCHEN
18 Tower Road
Brighton
Sussex

Volunteers benefit

Sir - Frances Cave's experience in applying for leave of absence is fortunately not typical (TES, August 22). Over three-quarters of the teaching volunteers who are due to go overseas through VSO and who applied for leave of absence from their local authority were granted it.

Over the past three years, following a paper presented to the annual general meeting of the Council of Local Education Authorities in 1983, VSO has been attempting to persuade L.E.A.s of the value of granting leave of absence to their teachers who wish to teach through VSO. An increasing number of authorities are recognizing that a period of service overseas can benefit teachers on a personal level, bringing them into close contact with a variety of different cultures. It may also benefit them professionally as they often have more responsibility than they could expect to have at an equivalent stage in their career in the UK.

VSO is receiving an increasing number of requests for teachers to work in schools and colleges. There is a particularly high demand for volunteers for pre-service and in-service teacher training and to work in curriculum development. We are therefore keen to receive applications from experienced teachers, especially those involved in language, mathematics, office skills, home economics, technical subjects and agricultural science teaching and the teaching of the deaf and the blind. It is gratifying that most education authorities do make it easier for teachers to work overseas, by giving them leave of absence.

PETER RELL
Head of Education
Voluntary Service Overseas
9 Belgrave Square
London SW1

Express purpose

Sir - I applaud Roger Knight's clear statement that a knowledge of grammatical terms "has no intrinsic bearing on anyone's capacity to use the language in the varied and effective way that English teachers wish to encourage" (TES, August 22).

I just hope the message is absorbed by those teachers who still think that the "English" department is there to teach "the basics" so that pupils can write formal physics essays and identify the indirect object in French.

L K WARNER
Head of English in a Berkshire

History doctors prescribe wrong medications

Sir - The Historical Association - no matter how eminent its delegates - does the subject and our profession no good service if it is taking to the DES such irrelevant and invidious arguments as outlined in *History for Life* and *A Matter of Life and Death* (TES, August 29).

Of course the citizens of the future should understand the history and mechanics of the franchise, but this is an argument for the widespread teaching of government and politics and its inclusion as a compulsory "special case" subject in a common core curriculum; of course the young should have an understanding of the

cataclysmic events of the 20th century but this is an argument for the compulsory teaching of modern world history - it being superfluous to state that on an objective canvas Lenin and F D Roosevelt are of more consequence than Lloyd George and Chamberlain; and it is arrogant to argue that history "can be made to teach skills in analytical thinking and in both written and verbal expression" for so also can geography, economics, politics and English.

There is a valid case for the inclusion of history and politics in a compulsory common core curriculum but it has not been made by Donald Read or the

Historical Association. If our subject and profession are indeed at death's door, then perhaps dismemberment or euthanasia are preferable to the pathetic picture of distinguished doctors and their professional organization ministering erroneous and unsuitable medications to the sick man in order to keep him alive in the curriculum a little longer.

PETER ASHDOWN
Head of History and Politics
Slindon College
Slindon House
Nr Arundel
West Sussex



Donald Read

Further, the major problem of the training of teachers in the humanities/social science areas is passed over. The single honours degree has contributed to a great deal of ignorance in our teaching institutions and the Historical Association's narrowly subject-based defence of history seems to spring from this mentality.

GARETH BEAVAN
Former Chairman
The Politics Association
33 Winston Avenue
Edlington
Stoke-on-Trent

Cast adrift

Sir - Writing articles for *The TES* may be a matter of life or death for Professor Read, but to other observers it looks more like a lone survivor drifting further and further away from the life boat we should all be climbing into in order to defend education as a whole.

The 20th century British History syllabus presented in the Historical Association's "History for Life" is a programme of political education, but Professor Read fails to acknowledge any of the problems of politics, economics and sociology teaching as well as ignoring the existence of other teaching associations concerned with political education.

One of the essential criteria for the organization of a synoptic subject like history must be a view of what constitutes a general education and the shape of the curriculum as a whole. This Professor Read resolutely avoids, although we are to be allowed to read and to sum.

Professor Read also argues that the proposed history syllabus could not be appropriately undertaken until 14-16. This, conveniently, fits neatly with the association's push to take history out of the option system and into the common core. But is this really the appropriate age for all children? What "framework of understanding and awareness" would be sufficient to become "constructive citizens"? Given the content-led nature of the framework, could some children achieve the necessary understanding before the age of 14? Would all children need the same curriculum time? Would some children acquire the necessary framework from general knowledge without formal study? How do the proposals link with other parts of the curriculum such as social studies?

The proposed syllabus will let children "discover" answers to such questions as "How the vote was won for all men and women?" Does Professor Read mean that the students would be engaged in personal discovery as Bruner might wish? If so, how would this be done with such closed issues? Or does the mean through guided discovery which is far removed from personal discovery and merely involves confirming established "right answers". If history is to come into the common core, the Historical Association must surely give more thought to the approach it recommends.

The study of history can indeed be made to teach skills in analytical thinking and in both written and verbal expression but then surely most subjects within the current option system do just that already. This could not constitute a case for abandoning the present curriculum pattern in most schools.

A good case for including history in the common core undoubtedly exists but we would be unwise to rush ahead with change without thinking through the aims and objectives of the whole curriculum and particularly the needs of children of different abilities.

JOHN DUXBURY
Head of Science and Technology
Vandyke Upper School and Community College
Vandyke Road
Lancaster BL2 7JZ

Constant standard

Sir - It is true that paragraph 9 of the General Criteria reads: "O level and CSE, taken together, were originally designed for the upper 60 per cent of the ability range... GCSE is not to be limited in that way. It will be designed not for any particular proportion of the ability range, but for all candidates... who are able to reach the standards required."

This means not that GCSE should cater for the entire school population, or even for 90 per cent of it, but that in future criterion-referencing should apply. Initially GCSE will cater for the upper 60 per cent of the school population as O level and CSE have done.

The intention (which begs a number of questions) is that the standard of GCSE should be kept constant so that, if the standard of candidates rises over the years, more than 60 per cent of the school population will be catered for. This could mean that in another 10 years some 65 per cent will be catered for.

PAULINE ALDERSON
St Anthony's Cottage
West Downs
Delnalyne
Cornwall

Passing fair

Sir - The success of Philip Turner ("Clean sweep for Essex boy", TES, August 29) can be matched by Christopher Walter, a pupil at this school. Christopher also achieved A grade passes in all five A levels: maths, further maths, physics, chemistry and general studies. Two of these were S level distinctions.

I suspect that a fair number of candidates throughout the country had comparable success. Why not a special roll of honour for these pupils? They deserve it.

J S WELCH
Head
Edlington Comprehensive School
Tish Avenue
Edlington
Doncaster

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TALKBACK

COMPETITION IN SCHOOLS

Not all good, not all bad

Beverly Shaw

Maurice Plaskow, formerly of the Schools Council, dislikes competition and wishes to see it reduced in schools ("... But some are more equal than others", *TES*, August 29). He writes: "Our education system has been bedevilled by fierce individual competitiveness, largely sanctioned by the public examination system." The article is also in defence of the opposition of some headteachers to structural competition in our schools.

You can understand Plaskow's dislike of competition. For while there are some winners in competitions, there are many more losers. We applaud Daley Thompson's win in the decathlon at the European Games. But for Jürgen Hingsen, the winning of the silver medal is a disappointment for an eight-times loser. Losing is painful, however much we affect a stiff upper lip. One way to stop the pain of losing is to abolish competition.

Such competition also leads to inequality. The winner, however temporarily, is better, at least in terms of some specific performance, than the losers. Inequality is often thought bad today because it is considered unjust that some people should be better than

others. This is condemned as elitism. Competition often demands standards, that is levels of performance that need to be reached. For example, musical competitions require the entrants, never mind winners, to have achieved a certain level of performance before entry to competition. And indeed the achievement of these standards often requires children to start their musical careers early in their lives. Yet Plaskow remarks that: "It does no service either to art or children to suggest that they are mini-artists, engaged in the same activity as mature adults, and therefore to be judged by the same criteria."

Plaskow's vision of education is intensely individualistic. Education, for him, is the development of the potential of human beings. Yet such development cannot be comparative, whereby the development of children is assessed relative to their peers. Each child is to be regarded as a unique individual, and not to be compared with others. For such comparison could be invidious, with some children judged to be developing faster or better than others.

Would this rule out any use of

inter-personal standards? If the children cannot be assessed relative to their peers, can they be assessed relative to any standard? If there is no standard, then how could we see any development at all?

Also, in the world as it is, resources are limited relative to demand for them. People then compete for access to such scarce resources. Plaskow lectures at the Royal College of Art to which a number of students apply but not all are given access. In these circumstances how do we select? An increasing awareness of pupils' individual educational needs heralded the drift away from the old rote-learning methods of yesterday.

But drill work can be an effective, and enjoyable, part of the primary school curriculum, according to Deanna Schilling, Associate Professor of Special Education, at California State University. She rejects the assumptions that group rehearsal has no place in the learning process, that drill work is inevitably boring for children, and that failure to master a piece of rote-learning will necessarily damage a pupil's self-confidence.

Deanna Schilling recognizes that collective social pressure on an individual pupil who gets his drill work wrong can lead to feelings of humiliation. Remember your own school days, when you were given those horrendous lists of spelling words to learn each night? Next day, every pupil in the class had to stand up at his desk and recite the correct spellings. Heaven help you if you got them wrong.

Yet Professor Schilling argues that these situations should be avoided, and she has developed her own innovative drill method. Initial reactions from educationists in the United States have been favourable.

Schilling identifies three key features of successful drill work. First, pupils must be well motivated, so the materials must be interesting. Secondly, although rote-learning is in a group context, pupils must be allowed to answer anonymously, without fear of comment from their peers. Thirdly, feedback on correctness of responses must be immediate.

The "everybody show" box encapsulates all these properties, and leads to effective learning. Schilling describes the materials needed: "The pupils are asked to bring a small box (for example, a cigar box) to keep in their desks. They are given a variety of materials to keep in these, including sets of upper and lower case alphabet cards and a set of numerical cards from 0-9. Also placed in the box is a 'everybody show' card. This is a piece of 5" x 8" construction paper. One edge is folded and stapled to make a 1" pocket at the bottom."

The actual technique itself is straightforward. "Now I could say, for example, 'Get out your numerals and put them in order from 0-9'. When that had been done I might continue 'What is 2+4?'. The pupil would find the numeral and place it in the folder. I would then say: 'Everybody show!' The pupils would turn and hold up

Carol Mellors is responsible for English at Frank Court Community Home with Education, Kent.

COMEBACK FOR DRILL

No boxes like show boxes

Richard Woolfson

Drill work in the primary school classroom — that is, the repetitive group chanting of basic arithmetical formulae or fundamental spelling patterns — has gone by the wayside. An increasing awareness of pupils' individual educational needs heralded the drift away from the old rote-learning methods of yesterday.

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their holders so that I could see their answers. After briefly scanning the list, if there were any incorrect answers, I would tell them the correct answer and go on."

Pupils do learn by this rote-method. And educationists at California State University highlight the advantages:

□ Each pupil answers anonymously without his peers being aware of his response.

□ Because all the pupils respond simultaneously, no longer is the situation in which the whole class listens while one pupil speaks.

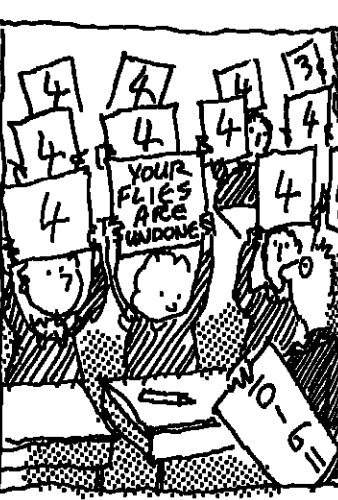
□ Pupils enjoy the technique, and discipline problems during the activity have been virtually non-existent, even in classes with difficult pupils.

□ The teacher obtains much more information about pupils who have or have not mastered the concepts being taught.

□ Feedback to the pupils is immediate.

Professor Schilling concludes that the "Everybody Show" Box, and group drill strategies like that, deserve their place in the ordinary classroom. "We stressed the importance of individualization to such an extent that we do not always notice when we have several pupils who need work or similar concept or skill? Do we avoid drill activities because we have previously experienced unpleasant competition or the boredom now believed to be inevitable aspects of drill work? Whatever the reason, it is hoped that these strategies will encourage (teachers) to try drill work."

The idea is becoming increasingly popular in American classrooms.



Dr Richard Woolfson is a psychologist at the Child Guidance Centre, Hamilton, Strathclyde.

FEATURES

News agency for adult education



Nick Baker finds the high street news vendors take more than one approach to their mature readers

WH Smith, booksellers to the nation, are taking an increasing interest in education. A few years ago they stopped selling tobacco and confectionery to allow themselves more book space. In a big branch you can buy a computer, a "teach yourself" foreign language course, a package holiday to gain practical experience, as well as the usual autumnal "back to school" paraphernalia of stationery, dictionaries and geometry sets, while those interested in higher education this month can buy a colour magazine that includes pictures of "The Nucleus Cambridge Graduate".

It was adult education of a different kind that was on Nick Harris's mind two years ago. As branch manager of Brighton Smith's, he was sending out his usual letter to the local colleges asking for details of set course books students would be looking for in the coming September. That year, he added that he'd be happy to help establish further links with the colleges and was open to suggestions about how his branch could help students and staff.

Vivien Martin, Brighton's area adult education principal, responded immediately. Why not allow adult education to have a counter in Smith's, where prospective students could browse, ask questions and enquire? The benefits to Smith's, in terms of public relations, and, to an extent, increased book sales, are clear. For the students, it means the chance to choose their courses on neutral territory while doing their shopping, rather than having to find the right brochure in the library or go to a rather anonymous institution to enrol. The Brighton area offers a dauntingly large choice of adult courses, spread over a wide geographical area and a number of different institutions. The Smith's scheme, now in its third successful year, simply adds the personal touch.

There's a lot of competition to attract shoppers in Brighton's Churchill Square on the last Saturday in August. Locals mix with the trippers and holiday makers, and the TUC conference traffic is starting to add to the throng. Outside Smith's, there is the occasional busker, two or three pavement artists, and the usual quota of *Socialist Worker* sales people.

But the real crowds are gathering outside one of Smith's windows, inside which two ladies, who seem blissfully unaware of their growing audience, are putting the finishing touches to elaborately iced cakes. This is another way for adult education to show its public face. Presently, two ladies dressed in leotards replace the cakes, and, to the accompaniment of Indian music (played out to the pavement for added effect) start some yoga exercises. The crowd immediately thickens, and, among the new onlookers, two young men start contributing a distinctly uneducational commentary.

A grey-suited Smith's employee deals with them quickly and discreetly, and later a Smith's security guard is despatched to keep an eye on the yoga watchers. The window display changes every two hours, to show off the best in flower arranging, wood-carving and stained-glass window making, among other things.

Meanwhile, inside the store, the adult education counter has a steady stream of enquirers, browsers and enrollees. In fact, by midday, 50 students have enrolled on various courses, and one art class has already been filled, so another one is spontaneously opened. The counter has the literature for all the institutions offering adult education in the area, including the local technical college and the polytechnic, as well as the WEA and the Quaker-backed Friends Centre. It's only the lattermost and the Brighton adult education service that can offer instant enrolment in Smith's, but the counter staff — Lynda Kinsella from Friends Centre and Vivien Martin — give out entirely impartial advice.

In fact, most of the new students already know what courses they're interested in and among the ones who do enrol on the spot, few are "impulse buyers". But the counter does attract a lot of attention and lots of literature is taken away. Arthur Scargill, down for the TUC conference, makes an impromptu visit to the shop (complete with burly minder) but, disappointingly, doesn't come to the adult education department. Presumably, commuting distance between Barnsley and Brighton is too great for him to be interested in local courses in assertiveness or public speaking.

It's worth remembering that the adult education curriculum is largely dictated by its students, and Vivien Martin finds the Smith's experience extremely useful in terms of market research.

"If 10 people come in and say 'Why haven't you got a course on, say, the influence the media has on the public?' then I know that that can go in next year's programme." Last year, Ms Martin had enquiries in Smith's about clock repair courses, this year she's found a tutor and the course is about to start. Smith's is also a good place to find potential teacher recruits, not only professional teachers but also people with a valuable skill who may not be sure whether they can become teachers overnight. Last year, Ms Martin put a sign in Smith's window next to the yoga ladies saying "Spanish Tutor Wanted" and got a speedy result. She also interviewed and appointed a sociology teacher in the shop.

Not only has Smith's been helpful in supplying furniture, a till, and a plentiful supply of small change, they've also supplied some students from among the staff, paying a special half-price rate for tuition. This results in fringe benefits all round. Smith's staff get a firmer link with the adult education scene, become more knowledgeable about their book stock and can pass on first-hand experience about their Chinese cookery, sweet-making and woodcarving to interested customers during the 51 weeks of the year when there's no adult education counter. Interestingly, despite the short time that the counter is in

operation, Brighton people have started to identify Smith's with evening classes and ask questions all the year round.

This identification clearly delights Mick Harris. He believes that the scheme will eventually increase his book sales, merely by dint of increasing the traffic through his already busy shop. But he emphasizes that while it isn't a hard-headed business operation, the company ultimately has "a tremendous vested interest in being educated, in people reading and people wanting books". And while it's impossible to quantify the scheme's success in terms of PR for the company, it's seen as successful enough to be emulated in other branches of W H Smith's, namely in Croydon, Rotherham and Blackpool.

After the scheme's initial success two years ago, when enrolment figures boomed, Vivien Martin now finds it hard to judge exactly how much the Smith's operation has contributed to the increasing popularity of adult education in Brighton. At the moment, it's just as important to her to be able to meet her customers face to face in a familiar and relaxed atmosphere. But she has any doubts about compromising the pure ethic of state education by helping with a giant retail chain's public image? The answer is a vehement no: "I have no objections to doing that, if that's what I am doing", she says. "Smith's are doing an awful lot for us — probably much more than we're doing for them."



Counter course: principal Vivien Martin sells evening classes direct to the public

Five but not rising

The 1981 Act's new deal for the handicapped may have reached the age for statutory schooling, but it has yet to be awarded a place in the minds of most teachers, says Michael McManus

The 1981 Education Act is a sturdy five-year-old but still spoken of as new. It placed on local authorities a "duty to secure" that children with special educational needs be "educated in an ordinary school". Children whose needs were so severe as to require formal assessment and statementing were explicitly included in this duty.

For the past four years the Department of Education has made special funds available for courses to prepare teachers to manage special education in ordinary schools: identification and assessment, providing additional help and considering the implications for the curriculum of the whole school.

Cynics have claimed all along that the Act would make no difference to practice. Sally Tomlinson even forecast an increase in professional bureaucracy and rising numbers in separate provision. There is precious little evidence to prove her wrong. There are three fundamental

barriers to progress.

First, we have an underlying fear and ignorance — a total lack of familiarity with those who have been excluded from our community for so long. In Barton and Tomlinson's book *Special Education and Social Inclusion*, David Goode tells of the intense horror and nausea that overcame him when he first encountered Johnny, an 18-year-old hydrocephalic. The nurse who tended this deformed and stunted youth described him as her "special favourite". She washed, dressed and played with him and plainly loved his company: "I'm his mommy during the day". This contrast in perception was due to ignorance on the one hand and knowledge born of a long and intimate relationship on the other.

In his moving and important paper Goode describes how he worked over a period of three years with Breta, a massively handicapped girl whose drooping gait and excessive salivation had led one of her teachers to compare her to a slug. Parents whose views differ from professional opinion are often regarded as unrealistic or delusional and so it was that Breta's mother told Goode apologetically that "I know you won't understand this but we think Breta's beautiful."

During his time in the home Goode came to understand Breta as a person with likes, dislikes, expectations, routines, and a beauty that was visible to the heart rather than the eye. The lesson of all this is that familiarity is needed; acquaintance not just description. And from this will develop a sense of outrage at the injustice of this educational, and consequent social, apartheid.

Second, there is the human tendency to simplify, to put things in boxes and thereby to begin the process of complete segregation. It is the intellectual division of labour through which

our limited minds come to grips with the infinite richness and complexity of the world.

Stereotyping and categorizing are no doubt essential to thinking, but if left undisturbed too long they lead to ossification of our routines, expectations and preferences. We come to believe that convenient ideas and categories are actually real and unchangeable. We come to reject severely impaired children not because we find them too disturbing, but because we believe they actually are profane.

Third, there are the concepts in the 1981 Act itself. Special educational needs and learning difficulties both leave the problem more or less centred on the child rather than the school. Perhaps we need to think in terms of unsatisfied needs and difficulties in teaching, thus shifting the responsibility for change to the school.

The answer does not lie in finding over better techniques to give the child access to the conventional curriculum. The curriculum must evolve to meet the child. We need to change our view of what counts as good education. For a start we could add successful assimilation of the severely impaired to the measures of school effectiveness currently in use.

What is to be done? Before anything can change, attitudes have to change. The method here is not only cognitive although to be sure the formal philosophy of persons, rights and duties has its place. What is needed and characteristic is a missing from our rationality dominated system is an aesthetic approach: education through the emotions.

I am not arguing for sentimental appeals. The serious research literature is not short of suitable material. David Goode I have mentioned and there is Dorothy Butler's *Castles*. In one of Dr Cuthbert's papers he quotes a mother's

description of her unfolding awareness that her baby had Down's Syndrome: the thrill and elation, the doubts, dismissed but lingering, and finally the dreadful discovery and the desperate hope that a mistake had been made.

People who are shown this extract are invariably unable to speak for some moments after reading it. The sorrow that we share with the mother is not due to a defect intrinsic to the child: it is our stereotypical concepts of normality and intelligence that obscure our view of the child in whose continued company we would learn to see the person not the impairment. This mother's story leaves an urge to embrace her unhappiness and accept the child — arguments for separate education seem suddenly worthless and irrelevant.

This is what courses for teachers should begin with before management, assessment and tips for teachers of basic subjects. Certainly it is an extreme view and practical men will point out how dangerous and ultimately unkind it is to the very people it proposes to help. They are not ready. The schools and the teachers are not ready.

If innovation waited upon readiness it would never occur. The GCSE is only the latest in a long line of innovations for which the education system was not ready. Lack of resources and staffing, if such there be, is no excuse. No other group would be denied access to ordinary schools on such a ground. We would all benefit from having our preconceptions disturbed and our capacity for ethical human action enlarged. What are we waiting for?

Michael McManus is deputy head of a special school, but is presently at present to Leeds Polytechnic Department of Education.

PRECOCIOUS EXAMINEES

The sacrifice of a childhood

Carol Mellors

So another junior school child has made national news by gaining an O level. Press and public alike reverence early academic achievement in children. The few who can read *The Times* at two still make the front page in the popular press, that is, presumably, if parents see fit to alert the media. However, is proper consideration given to the implications of such achievements?

Intellectual ability in advance of years does not bring with it corresponding emotional and social development. It usually exists in anxious isolation. Reading *The Times* at two may impress adults generally, but trying to come to terms with such concepts as The Nuclear Threat, War and Famine can prove at best bewildering and at worst terrifying, to an under five. Furthermore, it follows that the O levels most easily open to the primary school child are those which require more mechanical intellectual manoeuvres and maths therefore, proves the favourite.

However, even given outstanding ability, putting a young child through an O level course still requires systematic study and teaching. While parents doing this, and they are generally teachers and usually fathers, would argue that their children are enjoying every minute of it, it is nevertheless an activity which isolates the child from his peers and play for long periods. It cloisters the child with one parent who is investing a great deal of time and hope in a small individual. We never hear of those who fail, yet it is difficult to imagine any child not responding to the tensions innate in the coaching and examination situation.

If the child is successful, apart from the kudos which attaches to the family, what use is an O level to a primary school child? It appears to place the child on the examination conveyor belt years before his peers. Next comes A level and then, possibly, university while former classmates are embarking on their secondary education.

How do 18 and 19-year-old undergraduates view the child in their midst? Even the kindest are unlikely to take the child into their social groups, and thus university experience becomes limited to the isolated acquisition of academic knowledge. After this, being too young to be employed, the child presumably moves on to further study.

Being gifted in itself, frequently makes for social isolation. Peers and some adults reject the "know all" and older children with whom the child may have more in common, usually reject on social grounds. This social and psychological isolation can only be reinforced by prematurely pushing the child on to the examination treadmill. The growing child who is so far advanced intellectually, needs no pushing in that direction. What is needed is massive support and guidance on the other fronts, namely the social and emotional. These are the areas which are most vulnerable.

Academic knowledge can be acquired at any time, but failure to develop a rounded personality will pose infinitely more complex problems in the long term.

By 25, many of the gifted child's peers will have caught up and some will have overtaken him; however, their childhoods will not have been sacrificed on the altar of academic achievement.

VOCATIONAL PROGRESSION

Between the devil and the CPVE

Keith Ogg

Those familiar with the Certificate of Pre-vocational Education will remember this quote from the Red Consultative Document, May 1984:

"Central to the whole concept of the CPVE is the idea of progression: without this there will be no acceptance of the new qualification by young people and their parents."

Unease about progression has never been quietened despite the frequent reassurances and vague statements of progression provided by the Joint Board. Why is this?

First, the Royal Society of Arts withdrew from CPVE preparation early on and although they have allowed courses to be submitted they could make no alternative courses at any time. RSA would surely respond in kind: if BTEC or CGLI were to introduce new courses approximating to its submitted courses.

Second, the lack of publicity of CPVE until very recently and the rather poor, woolly presentation places has done little to convince anyone that CPVE provides any real base from which to progress. The refusal of the Joint Board to accept any equivalent value to CPVE (such as BTEC General

al "Credit" being equivalent to four O levels) is admirable in educational terms but denies CPVE one of its best possible selling points. No national agreement on progression in being sought with further education institutions. Little knowledge and no equivalent in the dilemma in which employers find themselves with CPVE.

Third, the Certificate of Pre-vocational Education subsumed courses widely regarded as distinctly vocational specifically, the very popular, successful and high status BTEC General. Colleges of TE in particular resented this. Technical Engineering Departments, fondly remembering the days of TBC (as opposed to BTEC), clearly made the point that progression from CPVE to BTEC II would be very difficult, possible only where the student completed the appropriate Preparatory Modules which corresponded directly with the BTEC I modules.

Worried business studies departments made representations to BTEC for a vocational replacement for the now defunct BTEC General.

The "new" first awards are that replacement — a strictly vocational course that gives no progression to

al "Credit" level students, aged 17-plus but this will not, we are assured, cut into the CPVE target group.

Many felt that the age restriction had no educational justification and would be dropped — senior members of the Joint Board assured us that it would not so schools did not apply for funding of first awards. The age limit has now been dropped to 16 as of September 1986, leaving the colleges as uncontested providers.

Indeed, BTEC's original requirement of "proven vocational expertise" to offer the first award has been changed to "only those institutions selected by FE regulations" and now from offering the first awards at all. This is, again, indefensible in educational terms and will probably change with pressure. The course will prove to be so popular, and such a potential money spinner (just when CPVE development funds are severely cut) that BTEC will surely enlarge the target group. It would be logical to assume that both the RSA and CGLI will respond with new courses of their own.

So, where does that leave CPVE? Some FE colleges are already openly discussing plans to phase out CPVE in 1987 and more will follow suit. Schools will continue to offer CPVE until other courses become available — say, 1989/90 but the tertiary colleges now being planned will be unlikely to consider CPVE and new national vocational qualifications should be available in 1990.

We at the coalface do not despair. The Joint Board has nearly finished writing the framework for their new (select any of the following — flexible, student-centred, activity-based, jointly-owned) 14 to 16 Project, to be rolled out to the printers soon.

Yes, I am somewhat bitter but there is still no doubt in my mind that the approach is educationally sound and clearly the path schools should take. This represents a fundamental redirection of energies, priorities and skills within education institutions.

But such a change cannot be instigated without considerable thought, planning, time and resources. It must be a "whole school" policy, designed to last, not two or three years, but rather at least as long as a student's school life. We cannot continue to use students and staff, as guinea-pigs without putting at risk the faith they — and employers — have in education.

Keith Ogg is 16 to 19 co-ordinator at Homerton House/Skinner's Company's School, London. Information on the 14 to 16 Project from Elaine Treas, Central House, Upper Woburn Place, London WC1H 0BH.

CORRECTION

In the article "First Impressions" featured on page 21 of last week's *TES* the number of school information books surveyed by Judith Musker should have read 281, not 28 as misprinted.

WANTED! NEW WRITERS

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FEATURES

FEATURES

Managing change



Bertie Everard, a former executive with the chemical giant ICI, gives his formula for refining the management of schools.

Since I retired early from the post of ICI Education and Training Manager in 1982 (because of a falling rolls problem), I have been an active observer and contributor to the school management scene. I obtained a grant from the Leverhulme Trust to study the problems of school management and how they are tackled, in comparison with similar problems in industry, with a view to building "management learning bridges" between education and industry.

It is significant, in Industry Year 1986, that there are some surprisingly close parallels between both the strategic and the tactical problems that education faces today and those that ICI has faced over the past 25 years: the management of contraction, for instance. Professor Andrew Pettigrew, in his recent book, *The Awakening Giant: Continuity and Change in ICI* (Blackwell), has chronicled how the company—one of the most complex business organizations in the world—successfully tackled the problems of inertia and brought about much-needed change. In a matter of three years, it converted a trading loss into a billion pound profit, which is not bad going in industrial terms. In order to survive and reshape the business, it also halved the UK workforce over less than a decade, without industrial strife and with a policy of no enforced redundancy. These are gigantic and difficult changes, measured in both financial and human terms.

It is fashionable to personalize success and failure, and the present chairman, Sir John Harvey-Jones, has deservedly been praised for his success, just as Sir Keith Joseph has been castigated for the failure of the education system

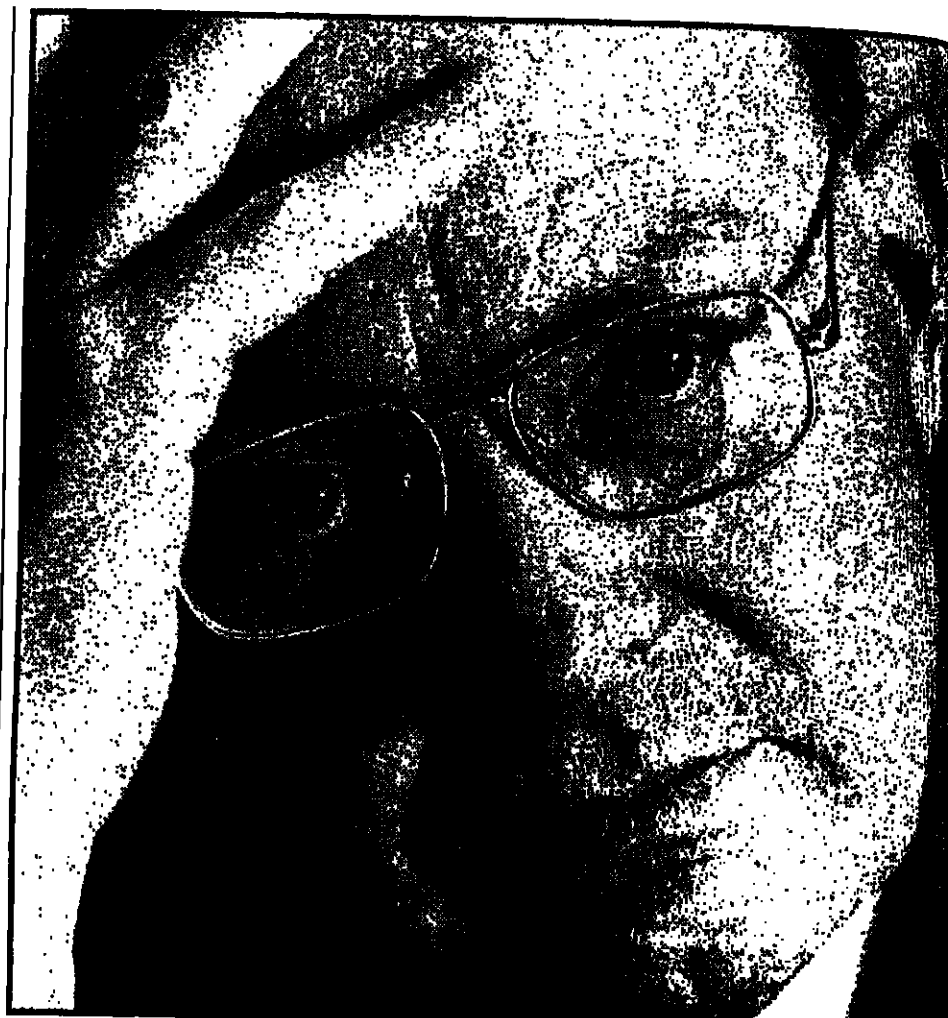
when the shop stewards' combine had got its act together while the management was divided and weak, so in education the initiative has passed to the NUT and the NAS/UIT. Harvey-Jones' response was to invest what then seemed an enormous sum of money in management training to train 2,000 managers in the Coverdale approach (Ralph Coverdale was a Jesuit psychologist who broke new ground in management training at British Steel, Esso, Unigate, ICI and many other firms). Key people were identified and trained to help managers. A common approach to managing change systematically was diffused through the management system; the same approach has been successfully used on a small scale in education, with the help of ICI, Rank Xerox and a few other firms, but the fragmented nature of education makes it all the more important to diffuse it widely.

However, seldom indeed do senior staff from Shire Hall and from schools meet together. Whenever the senior denizens of Elizabeth House shared a common, systematically designed learning experience with a director of education and with a comprehensive school head? Consequently, there is no common understanding of the processes of change and how they should be managed. There is no common vision of where we are trying to get to. The quality of what industry calls "personnel management" and what the armed services call "leadership" is relatively poor in education. No wonder there is a pervasive malaise, which the education service shares with much of the civil service, and which was so perceptively analysed by William Plowden, Director-General of the Royal Institute of Public Administration, in a Royal Society of Arts lecture, "What Prospects for the Civil Service?" (RSA Journal, 1985, 133, 526).

Let it not be thought that it is simply a question of low pay and under-resourcing, so that if the new Secretary of State, Kenneth Baker, throws money at the problem, it will be solved (though reallocation of resources is certainly needed). Its roots lie deeper than that—much deeper.

The politicization of education is a major part of the problem: the moment a plethora of political interventions are imposed simultaneously on the system, its effectiveness flies out of the window. While the stakeholders in education were mostly sleeping partners, it was relatively easy to manage; now that they have all woken up and are putting their oars in, school management has become a more demanding activity. Once the sound organizing principle of "stick to the knitting" was ditched; with selective schools going comprehensive and getting large, with schools for children becoming community schools for everyone, and with the handicapped being thrown into the same pot by the 1981 Act (however laudable these changes in sociological terms), so the problems of managing mounted exponentially. Moreover, the management has not proved equal to the task: its capability has been swamped by the tide of complexity. At a time when much of industry has been rationalizing and simplifying, because complexity was becoming unmanageable, so education has been diversifying, until it has become virtually ungovernable.

So, over the last 18 months the unions stepped in to call the loudest tune, making the life of the heads almost unbearably frustrating and disast-



Bertie Everard: 'At a time when industry has been simplifying . . . education has been diversifying until it has become virtually ungovernable'

fy, and opening up rifts in the structure which the service can ill-afford. It is time that the hearts and minds of the teachers were won back by those responsible for managing the education service from top to bottom, but where is the Montgomery who will restore the troops' faith in how they are led?

In these days of so-called "democratic management", it would be folly to suppose that the new Secretary of State could supply all the leadership that is required; it is more a question of encouraging leadership qualities and skills to emerge throughout the system. The long-term aim is summed up by the Chinese proverb: "As for the best leaders, the people do not notice their existence; the next best, the people honour and praise; the next the people fear; and the next, the people hate. But when the best leaders' work is done, the people say 'We did it ourselves'."

In the short term, however, there needs to be a strong focal point, not so much for penetrating thought (which was Sir Keith's strong suit), but for empathetic action that speaks to the condition of the teachers and raises their eyes once more from the pay-packet to the hills. This is the task now facing Kenneth Baker. What are the messages for the other actors in the tragedy of education? Here are some of them:

■ Forge better links between educational policy, organizational development and management development;

■ Improve the mechanisms for integrating the various elements in the education system—national with local government, Shire Hall with schools, inspectors and advisers with doers, primary with secondary, faculties and departments with one another;

■ Spread throughout the service a systematic approach to solving problems ("managerial" rather than "political");

■ Evolve a coherent set of personnel policies for developing staff and organizations within I.e.s.s (this must, of course, include appraisal, and link job specifications to the reward system);

■ Selection criteria for education managers should be mainly managerial, not ideological or pedagogic;

■ Spread upwards, sideways and downwards the use of "catalysts" like the National Development Centre for School Management Training, at Bristol for initiating and facilitating change; take on board the work of the Industry-Inspired Centre for the Study of Management Learning at Lancaster;

■ Shift more of the pedagogy at all levels (UNSET and pupil teaching) from didactic to learning-by-doing;

■ Train people to think in terms of objectives and key results, rather than in terms of "achievement".

■ Focus management training in all parts of the service on solving real problems, and let it draw more freely on industrial experience, capitalizing on the Industry Year 1986 initiative;

■ Train the advisers and inspectors in consultancy skills and in management (or use external consultants to supplement the existing advisory service);

■ Build up the "personnel management" support system in and around schools, not least to deal with the pressing problems of the unsatisfactory performer and of stress;

■ Give a stronger steer to the design of award-bearing courses in education management, so that they are geared more closely to performance improvement;

■ Do not reject on ideological grounds the potential contribution of private sector training agencies and consultancies: they are a rich source of tried and tested expertise;

■ Professional associations (SHA, NAHT) need to get better organized nationally and regionally to influence more effectively the schools' environment;

■ Above all, carve out more time, effort and resources for planning and managing long-term strategic change.

Managing the education service after the dispute will not be a return to normal. The educational environment will stay turbulent. Unless the service can develop its capacity for managing in a turbulent and even hostile environment, worse is to come. So there is no time to lose: management from the top down must get its act together fast.

Dr Everard is a visiting fellow at the University of London Institute of Education. His book *Developing Management in Schools* has just been published by Blackwell at £6.95.

KENNETH BAKER

The empathic Montgomery who will raise teachers' eyes from the pay-packet to the hills?

SIR KEITH JOSEPH

Penetrating thought, his strong point but the DES lacks the capacity for change

SIR JOHN HARVEY-JONES

Under his chairmanship ICI tackled its inertia, turning losses into a billion pound profit in three years

to adapt to necessary change. However, the roots of successful and unsuccessful change in any organization run much deeper than this. If it had not been for 25 years of patient preparation for major change, it is doubtful if ICI could have accomplished so much under Sir John's leadership. The foundations of change and the development of a capacity for managing it, were laid long before he became chairman; he has been one of the most effective proponents and exemplars of a systematic approach to strategic change for many years. Sir Keith, on the other hand, was not so fortunate as to inherit an empire where the necessary capacity for change had been developed; not for nothing has the DES been dubbed "a vehicle with the engine of a lawnmower and the brakes of a juggernaut".

Such systematic management development as formerly took place in education was largely didactic, aimed at helping aspiring heads to manage the status quo and informing them of policy rather than equipping them with the skills to implement it. The belated DES 3/83 initiative, which provided £2.5 million a year to release but a tiny proportion of heads for management training (including "encounters with industry") was not matched by any initiative to equip education officers, advisers, inspectors, teacher trainers and the policy makers at Elizabeth House for the immense support task they faced in bringing about change in schools.

The necessary structural changes have been put off for years, yet we know that today's organization structures are monuments to yesterday's problems. The DES' understanding of human behaviour, its views on organizational behaviour, its approach to management with industry, as at Wilton, ICI's largest site in the country

You cannot be serious ma'am



Will teachers ever accept legitimate criticism, Hilary Moriarty wonders

At a recent gathering of teachers, four of us were asked to perform a role play exercise on assessment of teachers. Two acted out a "good" assessment interview at the end of a school year; and I played the "heavy" head of department in a "bad" assessment with a recalcitrant member of staff.

I will admit that in our version there was an element of ham. We had our doubts about the other role-play as well; larded with compliments and *bonhomie*, the "good" interview ran like honey off a spoon. Would that relations in school were really like that.

My fellow role-player and I went at it hammer and tongs—I yelled, I insulted, I got carried away; he blocked and stalled and yelled back.

As a demonstration of how not to do it, it was quite impressive. So much so, in fact, that some of the group for whose delectation we'd provided the show simply dismissed our efforts. "Pure melodrama!" said one, with folded arms and a closed face. "Just embarrassing."

"I just wouldn't have stood for that," said another, ready to take deep umbrage about a role-play, for heaven's sake. "If any head of department had spoken to me like that, I'd have just walked out. I would have said, 'I'll speak to you when you've calmed down,' and I would have walked out."

Would you indeed, I thought. Is this not a supreme—and misplaced—arrogance? Is this a demonstration of the fact that we who play God in classrooms all day may actually believe that we are above reproach?

"Us? Reproachable? Well, I know I'm not always on top form. I mean, sometimes I'm not fully prepared, or I don't feel too well, or perhaps I forgot to take the marking home, or sometimes, you know, when I'm really busy, I just put a tick and a 'V.G.' at the bottom. I occasionally walk in and say 'Open your books at page 4 and do the comprehension,' and I haven't even read the myself. And I know I shouldn't do that, and yes, I

suppose I did get rather out of hand yesterday. But reproachable? Me? Good heavens no, I'm a professional teacher. And that guarantees irreproachability, doesn't it?"

It has to stop. We have to acknowledge that we're human; we get things wrong; we do our best (mostly) but sometimes we boob. And if someone else is going to notice and care and feel obliged to do something about it—like shout, criticize or demand better—the chances are we will boob less. We might even do our best more often.

It doesn't half keep you on your toes, accountability. The last time I experienced its full rigour, I was working for the BBC, and while teachers only think they are God, there the producer was.

As a researcher, I was responsible for finding people of interest, chatting them up and assessing their likely success on a radio talk programme, setting up the time and place for interview, briefing the interviewer and writing the script.

I was still new and nifty—copied when I blew one assignment completely. I managed to get an important interviewee to the commercial studios nearby, instead of the BBC ones he should have been at, expecting to go on breakfast television, when we wanted him on breakfast radio.

The producer, the interviewer and the studio with its technical staff stood by and waited. It was very expensive. When the interviewee did arrive, late, flustered and furious, there was just time to record the interview before firing the flak in my direction.

It was not an unpardonable sin; my work for the team was basically reasonable; but on this occasion I had made simple mistakes. If the interviewee was in the wrong place at the wrong time, it was clearly my fault.

I was told very firmly—I think I even recall raised voices—where I'd gone wrong.

When I went home, in tears and ready to quit, my husband was quite sanguine about the whole thing.

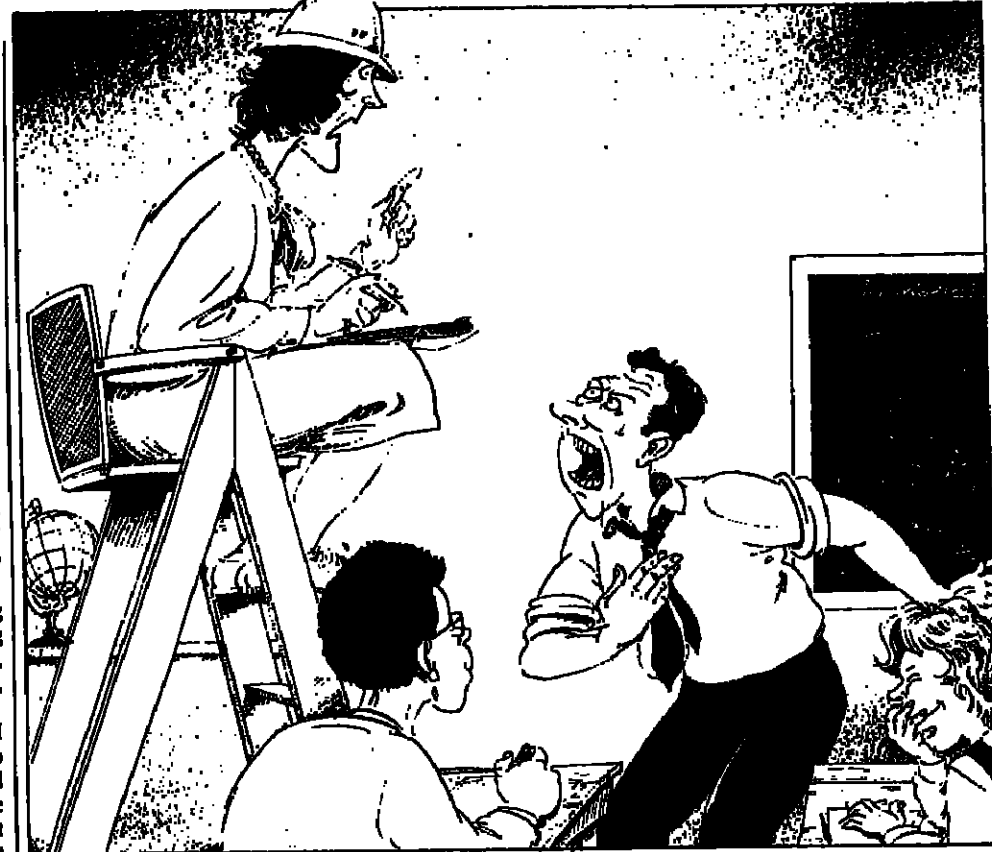
On the other hand, if I'd turned to the producer at the height of her quite justifiable ire and said, "I'll speak to you when you've calmed down," . . . well, honestly . . . words might fall me at this point, but I don't think they would have failed the producer.

The problem is, of course, that whatever you do, wrong at the BBC, the product is ultimately trivial: sounds in the air, ephemera. But producers and all the backroom men and women who get

a show on the air, care passionately that they turn in their best performances, individually and collectively, every time. Do your best, or the audience may switch off. That's real accountability. The aim is perfection.

I sometimes think that we, with our captive audiences, are content with a great deal less. Let me not say, "Ay, but at the BBC they're better paid, so of course they work harder." I came back to teaching for substantially more money than the BBC was paying me. Though there's at least one county where I need not bother looking for a job: the very important interviewee who I mislaid happened to be a director of education.

Hilary Moriarty teaches in Gloucestershire.



"You've been too long in teaching," he said cheerfully. "As a teacher you can get away with bloody murder, and no one says boo to you. Out there, in the real world, if you get it wrong, you get jumped on, and then you don't get it wrong again, do you?"

He was right, of course. I didn't.

On the other hand, if I'd turned to the producer at the height of her quite justifiable ire and said, "I'll speak to you when you've calmed down," . . . well, honestly . . . words might fall me at this point, but I don't think they would have failed the producer.

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Hilary Moriarty teaches in Gloucestershire.

The FE appraiser's guide to the galaxy

Jeanne Goulding charts the questions every scheme will have to negotiate

A number of colleges are already operating, piloting or contemplating systems of staff appraisal, but no scheme can be simply transplanted from one educational institution to another.

Similarly, no single appraisal scheme could hope to meet the needs of every college of further education in England and Wales, with their infinite variety of size, structure and type.

In the search for a viable system in further education, however, there are certain basic questions which need to be debated in every college. This process, in itself, could form an important exercise in staff development. In the absence of a development blueprint, the following checklist is offered to colleges currently considering introducing appraisal:

What is the purpose in instituting staff appraisal? Is appraisal to be an integral part of corporate planning? Is it to be linked to institutional and/or course evaluation? Is it to increase accountability? If so, to whom? Is it to improve the management and support of learning processes? Is it to recognize, support and disseminate effective practices?

Who is to be appraised? All academic staff, including senior management? Support staff, including administrative and non-teaching assistants and technicians? Who will devise the system?

Will the scheme be voluntary or compulsory? Will any inducements or sanctions be used?

Will the scheme be fixed or open to negotiation? Will staff be able to propose their own performance measures or to collect and submit data, instead of, or in addition to, those already being used?

What data will be collected and how? What instruments/documents will be selected/ designed: job descriptions? Questionnaires? In-

terview schedules? Aide-memoires? Record sheets? Will different data be sought for different levels of responsibility and experience? What aspects of performance will be appraised? Processes? Outputs? How is the influence of external factors on performance to be assessed? Will teaching and learning be observed and appraised? By whom? How?

How will the scheme be implemented? Will there be a pilot scheme? If so, who will take part? Who will evaluate it? What time-scale is envisaged for implementation?

Who will co-ordinate each appraisal? Will there be a pilot scheme? If so, who will take part? Who will evaluate it? What time-scale is envisaged for implementation?

When will appraisal take place? Will it be at the beginning, during or at the end of the academic year?

How often will appraisal take place? Will it be on an annual basis? Bi-annually? More often frequently for certain categories of staff?

How will staff be trained? Will there be an induction programme? Who will be trained? Scheme managers? Interviewers? Observers? Appraisers? What will the training involve? Concepts? Skills? Methods? Attitudes? Who will carry out the training? Outside consultants? An "in-house" team?

What records will be made? Will they involve a form of contract with agreed targets? Will they be negotiated? Who will write them?

What use will be made of any records? Will they form a basis for references, internal and/or external? Will they be made available to the appraisee? Who else will have access to them? Will records be kept indefinitely? Will they be transferable to other institutions?

Senior management? Academic board? All staff likely to be involved? How will the unions be consulted and involved?

What kinds of appraisal will be feasible and acceptable? Self-appraisal? Peer group? Line management? "Bottom-up"? Student appraisal? Employers? Governors? Parents? What will be the outcomes of staff appraisal? And Statements? Records? Staff development initiatives? Promotions? Re-employment? And what criteria of performance are valid and acceptable?

How will the scheme be managed? Who will be responsible for what and to whom? Are the persons responsible clearly identified? Are the terms of reference clear? Who will decide what changes, if any, are required? Who will implement these changes?

How will the scheme be marketed? What are the best ways to ensure that all staff understand the policy and procedures involved?

How will staff be motivated? What will staff and students gain from staff appraisal? Will staff have confidence in the designated appraisers? How will the appraisers be convinced that the time and effort involved is well invested? How will it be possible to prevent appraisal becoming a paper exercise in which reports are compiled and filed simply to comply with DES policy?

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How will the scheme be monitored? If targets are set and/or agreements entered into (for example, concerning resources or staff development), will these be reviewed before the next appraisal? If so, how frequently? Will there be continuous inputs of data related to staff performance? If so, what inputs? Will advice, support and time be made available to help staff to achieve the targets/programmes?

How will the scheme be moderated? How will consistency of standards and practices across the college be ensured? Will the scheme be moderated internally—for example, by senior management or a college working party, or externally—for example, by consultants or by the local authority?

How will the scheme be evaluated? By whom? Will evaluation be formative or summative? What criteria of success will be used? Are these criteria to be pre-specified or to evolve as evaluation proceeds?

How will the scheme be resourced? What funds, staff time and administrative support will be available for training, appraising, monitoring, moderating and evaluating the scheme? Will there be institutional and/or local authority commitment to meeting staff development and/or resource needs arising from appraisal?

From these initial questions, which are clearly not exhaustive, it is obvious that the development of a scheme for staff appraisal is more complex than it might at first appear. Indeed, they raise the question of whether the emphasis on staff appraisal, to the exclusion of wider but related issues concerning the resourcing and central management of education, is not misplaced.

Jeanne Goulding is Principal Lecturer (Staffing) in Dewsbury and Bailey Technical and Art College, West Yorkshire.



This book is an important reminder (that is to be a part of an ethnic minority (the German "volksgruppe" is a so much better term) is the experience of some members of every race in the world. Michael Byram's account is fascinating. He lived for some months with the community and in particular spent much time in one of the schools: the observation is detailed and respectful. The German community in fact does not have German as its mother tongue but a local dialect of Danish known as Sønderjysk. German is taught as a second language and Danish as a foreign language in the German schools which are staffed largely by German teachers trained in Germany and employed in Denmark - though often a secondment which is a life for the author does not give the reader many words but it is clear from the description that it is the teaching

The resource which, it seems to me, is going to need the most thinking about is not money, but time. The issue of when mother-tongue teaching is to take place, and how much of it there should be, has been left vague or unresolved in most of the literature. If it is outside school hours, then this is sometimes condemned as "marginalizing" the subject, assigning it "low status". It is attacked as racist. But if it happens in school hours, then by definition it is displacing some other class. If it is blocked against French, for

Verma was a member of the Swami Committee and his work is based on studies of south Asian pupils, and in particular their attitudes, attainments and job-finding experiences in Leeds and Bradford. The Taylor/Hegarty work is based on a review of the research commissioned by Swami. It runs to over 600 densely printed pages, almost every one of which cites up to a dozen research findings. It thus falls into the "indigestible but indispensable" category taken in small chunks. It is a veritable

Both these authors of course are part of the academic tradition of objective research, empirical methods and reasoned analysis of findings: a tradition much pooh-poohed by the New Left—as represented for instance in *The Local Politics of Race* written by three sociology lecturers and one race relations adviser. This is a thoroughly infuriating and pretentious book. Fundamental to its whole approach is the belief that the only research that is not either itself racist or open to exploitation by racists is research that is “carried

As I read these articles, and came about for comparisons, the one that came most frequently to mind was the English 18th-century peasantry which later became the 19th-century working class - pictures of Hogarth and Dickens; Gin Lane, urban squalor, crime and child prostitution; again a mass migration, disorientation and brutalization. (Indeed some contemporary comment, like a recent article in the *Economist*, traces the peculiarly British

Anne Sofer

Caring for your children is a refreshingly practical guide, aimed both at parents and at professionals. Martin Herbert is a psychologist, and he is interested in behaviour. Thumb-sucking, discipline, school refusal and sex are some of the topics he deals with, offering simple but effective behavioural techniques such as reinforcement, extinction and time out. These and others are all explained in clear language free from jargon. This is a most useful book.

Stephen Barber

07/34/00/3

Two titles in a series which provides information from which the reader can learn much about the different aspects of the lives and peoples of the countries in which the costumes originate. Each book offers a brief text with good, clear drawings.

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Social climbers

by David Marsland

Making Sense of Modern Times: Peter Berger and the Vision of Interpretive Sociology. Edited by J D Hunter and S C Alnley. Routledge and Kegan Paul £28. 07 02 0826 X. £7.95. 0475 X.

Migration. By J A Jackson. Longman £4.95. 0 582 480523.

Introduction to Sociology (Fourth edition). By E W Stewart and J A Glynn. McGraw Hill £17.50. 07 061338 9.

Power, Action and Belief: A New Sociology of Knowledge? Edited by J Law. Routledge and Kegan Paul £8.95. 0 7102 0802 2.

Sociology: a new approach. (Second edition). Edited by M Haralambos. Causeway Press £4.95. 0 946183 27 9. £9.60. 28 7.

Sociology: New Directions. Edited by M Haralambos. Causeway Press £15.00. 0946183 18 X. £7.95. 17 1.

The Sociology of Schools. By K Chapman. Tavistock £2.75. 0 422 60210 8.

Media Sociology. By D Barratt. Tavistock £2.75. 0 422 79870 3.

The ABC of Sociology. By M Slattery. Macmillan Education £2.95. 0 333 39331 7.

Four new introductory texts, three new introductions to aspects of society, and two new collections about key issues in sociology. It would hardly seem that the discipline is in the condition of decline which has been variously lamented and applauded recently. The Eighties do not of course present the rich opportunities of the Sixties and Seventies, when – as the late Philip Abrams put it: "Major publishing houses established sociology lists and went cap in hand round the new academics begging for titles." This recent crop suggests, however, that sociology is still flourishing quantitatively.

As for quality, that is a harder question. Relevant criteria include scholarship, writing and presentation, pedagogic aptness, and the truth of the accounts of things social which are

offered. These are difficult to evaluate, and may in any case conflict. My judgement is that this set of new books includes two which are excellent (*Making Sense of Modern Times* and *Migration*); two more (Stewart and Glynn's *Introduction to Sociology* and *Power, Action and Belief*) which can be commended without serious reservation; and as many as five about which serious critical questions need to be asked.

Making Sense of Modern Times is a collection of papers about the thought of Peter Berger, one of the most intelligent and imaginative of contemporary sociologists. His remarkable books include *The Social Construction of Reality* (1967), *A Rumour of Angels* (1969), *The War over the Family* (1983), and *The Capitalist Revolution* (1986). The several analyses here, especially the first chapter by Nicholas Abernethy, are all interesting, scholarly, and substantively important. The book includes an epilogue by Berger himself which contains the following important judgement (page 223):

When *The Social Construction of Reality* and other early writings of mine were taken as a warrant for the various utopian eruptions of the late 1960s and early 1970s, this was due to a profound misunderstanding.

Used in introductory courses in higher education, this book will provide a valuable stimulus for deeper thinking about the complex nature of social reality than has sadly become common recently.

John Jackson's *Migration* is a tour de force of disciplined compression of essential ideas and facts. The movement of human beings across the face

of the earth between nations, continents, and cultures is one of the most important social processes, yet its study remains remarkably undeveloped. This book is a first-class introduction to the topic. His chapters examine the general nature of the process, its fundamental relations to the labour market, the way individuals make migration decisions, assimilation and accommodation in the new setting, the control of population movement and migration policy, and the implications of immigration for the social structure of receiving societies. The immense contemporary flood of legal and illegal immigrants into the United States is just one sign of the continuing, and likely increasing, significance of migration.

Stewart and Glynn's introductory textbook is a typically comprehensive and competent American product. Its organization and its presentation make it an excellent teaching vehicle. It avoids the ideological biases and theoretical extravagance which colour too many home-grown texts. Its theoretical perspective is eclectic, and used effectively to introduce relevant ideas and facts about "The group basis of society", "Differences within societies", "Trends in societies", "Changing institutions", and "Social change". It would be useful in introductory courses for specialists or non-specialists in higher education, and helpful at A level.

Sadly, their chapter on the economic system suffers to some degree from sociologists' constitutive prejudice against capitalism, but fortunately less than many of the texts I have examined in my "Seeds of bankruptcy: sociological bias against business and freedom".

In the series of Sociological Review Monographs which began in the early Sixties. In the nature of collections, the series as a whole and this particular book are of varied quality. This one includes among its 12 contributions by different authors sufficient original and valuable analysis to make it a worthwhile purchase and an important source for anyone interested in the sociology of knowledge.

I found John Law's introduction, Mary Douglas' analysis of scepticism, Barry Barnes' examination of the relations between authority and power, and Bruno Latour's fascinating argument for abandoning the concept of power particularly interesting. The latter includes the beautifully provocative proposition – which could do sociology much good – that "society is not what holds us together, it is what is held together". The book neither constitutes nor identifies the "new sociology of knowledge" of the sub-title, and its emphasis on power and its debt to Foucault may in the end prove counterproductive. It provides, none the less, a stimulating, original, and worthwhile entry to a crucially important field of sociology.

The two books by Haralambos are products of his rapidly growing and highly successful publishing empire. *Sociology: A New Approach* will probably parallel at O level the amazing success of his earlier A level text, and in many respects this will be merited. Its major weakness is its grossly inadequate attention to the economy and industry, and the oversimplified left-liberalism of its line on many issues.

Sociology: New Directions provides a useful source on underdeveloped themes in sociology – race, development, urban sociology, youth, the

mass media, knowledge, and health – each of the sections, incidentally available as a separate book. Different authors, they vary in quality with Frith's on youth outstanding. A general introduction pulling the sections together would have been useful and some sections are more than a little one-sided in their ideological predilections.

The books by Chapman and Bone are short introductions in the *Social Now* series. Both of them, particularly the former, struck me as rather oversimplified reflections of orthodox sociological prejudices. For example, Chapman concludes with the proposition that state education is dominated by discipline, submission, and competition, and that its primary purpose is "control of the masses".

Slattery's *ABC*, based on a *New Society* series, constitutes a useful, nicely presented glossary of sociology. It will certainly be much used by school students. Herein lies the danger, for the entries are of necessity short, and in some instances rather misleadingly one-sided – for example capitalism, community, culture, democracy, proletariat – where the concept of false consciousness is unblinkingly used – and social mobility. It reproduces and reinforces British sociology's obsession with class, with the assertion that "Social stratification... is the central theme, the bread and butter of sociology because it is a factor not only in the structure of society but in the behaviour, lifestyle, and life chances of its members." Like too many sociology texts, this tells us more about the author than about the object of his analysis.

David Marsland is professor of sociology at Brunel University. His publications include the monograph, *Negotiating and Betraying: War and Violence in Modern Sociology*, based on an examination of a wide range of material including 35 texts used at O and A level. Available from the Institute for European Defence Strategic Studies, 13-14 Golden Square, London W1R 3AG £4.50.

'Nice' distinction

Losing Out: sexuality and adolescent girls. By Sue Lees. Hutchinson £5.95. 0 09 164 1012.

Losing Out is a valuable social record of conversations with adolescent girls about school, friendship, boys, sexuality and their expectations for the future. All the conversations lead back to one thing – sexuality.

The reason sexuality preoccupies the adolescent girls of the Eighties is as it has ever been: marriage continues to be regarded as the central feature, and often the only important feature of a woman's life; and only "nice" girls will find a man to marry them. Whether the need to be a "nice" girl has now become more adult myth than adult reality does not much matter if the belief in its importance is widely and strongly held by adolescents – and it is.

Sue Lees' research shows just how vague are the criteria which distinguish "nice" girls from the alternative category, "slags". It is not necessary for a girl to have been with, or any other similar coy adolescent description, several boys to be called a "slag"; she may just have been seen with the "wrong" girls, or in the "wrong" place, or wear clothes which differ from those of her peers. And of course boys exaggerate their "conquests".

The extent of the criteria which distinguish "nice" girls from the alternative category, "slags", is not necessary for a girl to have been with, or any other similar coy adolescent description, several boys to be called a "slag"; she may just have been seen with the "wrong" girls, or in the "wrong" place, or wear clothes which differ from those of her peers. And of course boys exaggerate their "conquests".

It makes you feel terrible, makes you feel as if you don't want to go out, as soon as you go outside the

door you get someone calling you a slag. It's not worth it."

When the author set out to listen to these girls she wanted to know whether the adolescent girls of the Eighties had experiences and expectations which differed significantly from those who had been adolescent in the Fifties. She found that the use of sexist terminology to oppress the behaviour of girls had not been altered – and adds her voice to others challenging sexism in language.

She also concludes that the women's movement has brought no significant change in either attitudes or behaviour. Here the author fails to recognize the extent to which language is lagging behind reality. While most of the girls with whom she talked do not see any obvious alternative to acceptance of a subordinate role within marriage, it is a future which they do not greet with the enthusiasm of previous generations. This is the generation of the jaded adolescent; a quote one of them: "Marriage is something you end up with after you have lived."

And it is not just that they feel differently: the girls also talk of delaying the inevitable marriage. This phenomenon can be seen most clearly in the United States where in 1970 only 9 per cent of women were not married by the age of 27; now more than one-quarter are still single at that age. This is a remarkable change in behaviour in a relatively short time.

Hilary Stonefrost

Arendt

The reprinting in paperback by Andre Deutsch (£6.95) of Hannah Arendt's *Origins of Totalitarianism* coincides with the publication of a monograph on the author's life in the Penguin Lives of Modern Women series.

Origins of Totalitarianism brought this extraordinary and inspiring writer to prominence in the early Fifties. Her reputation as a radical political thinker continued to grow, like that of her fellow refugees, the Frankfurt School, Marcuse and Adorno, through the Sixties and Seventies. Described principally as a political philosopher, she has few parallels as a writer

those interested in purely literary or cultural topics. Her insight and breadth of vision are always exhilarating, if sometimes controversial. The book on Arendt's trial, *Eichmann in Jerusalem* subtitled "A Report on the Banality of Evil", offended conventional Jewish opinion but is as enlightening about the function of language as an instrument of totalitarian oppression as it is about the nature of Nazism.

Hannah Arendt by Derwent May (Penguin £2.95) tells the story of her life and development as a writer in a way that should serve to spur the reader on to discover more about this remarkable woman.

Jane Corbett

Cityscape

Survivors of Steel City: A Portrait of Sheffield. By Geoffrey Beattie. Chatto & Windus £5.95. 0 7011 3031 8.

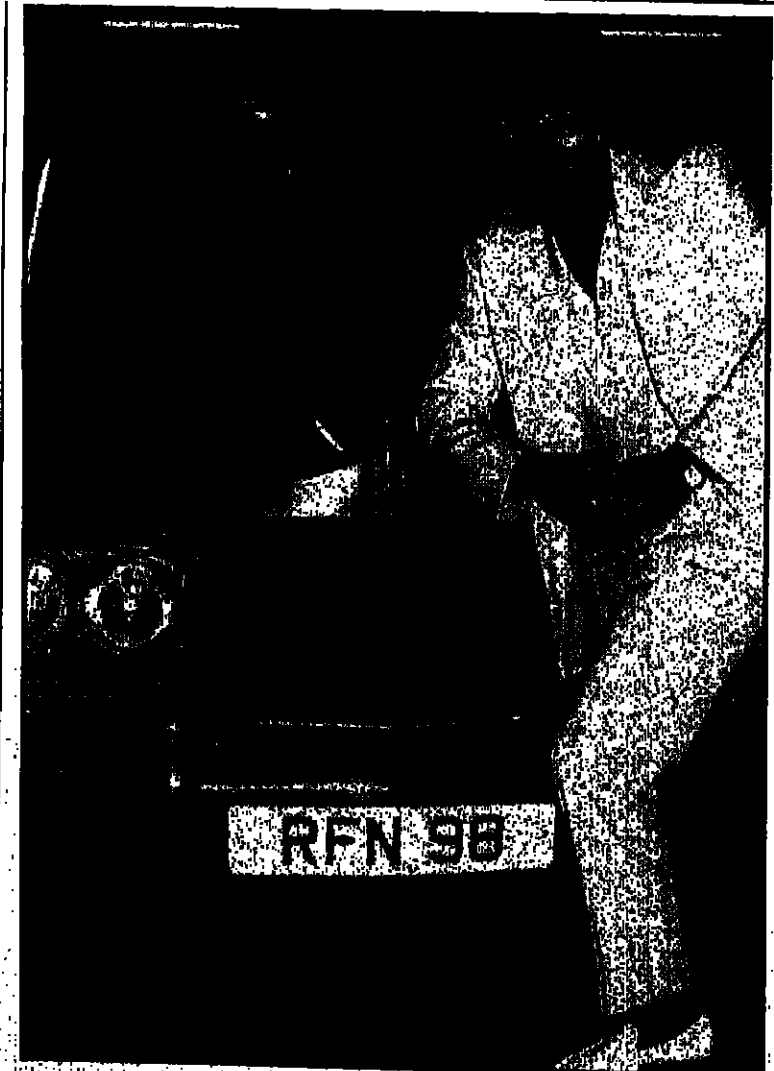
On brides-to-be at Josephine's, the prize canteens of cutlery come from Poland or Taiwan. The guy in the white suit with the Rollei parked outside earns £50 a week, maximum. If, as Freud suggested, work is our prime line of contact with reality, unemployment offers an alternative unreality.

This is Sheffield in recession. Once the crucible of the British Steel industry; these days in Sheffield, Crucible means smooker. Melted down, the chunky rings and chains the flash boys wear in the clubs turn out to be mainly brass. Under the lights, though, who can tell? And if she finds out that your company is floated off a giro from the Social and that your Rolls sleeps in a lock-up two miles from your arrears-laden council flat, what do either of you care with that much bubbly under your belt?

Geoffrey Beattie's book is an account of psychological survival, the fantasies that are erected in place of everyday reality. Very material fantasies some of them are; he found more than one man supporting a champagne habit (and a Rolls-Royce) on near-breadline wages, all to keep up the nightclub image. Spend your early working life with the heat and glow and steam-hammer noise of a foundry and you're apt to spend (spend!) your redundancy amid the sweat and glitter and disco-thump of a nightclub. Beattie compares Beattie's sternly middle-class strictures on 19th-century working class life with the contemporary version: almost everything has changed except the need to escape. A fine closing chapter puts this all in theoretical context.

Arthur Scargill moved the NUM headquarters to Sheffield. It was a symbolic move, much appreciated, but also rather ironic. Little sign of advanced political consciousness in Josephine's. Even the young activists do it – like students of the Sixties – in default of anything more compelling.

Beattie's university psychology, his services to the cause of local, petty, schismatic, bourgeois, unappealing, the



odd imported management consultant, clairvoyants, evangelists. The ecology is complex. If post-recession Sheffield has become a social Darwinian jungle, then it's the fittest who survive, the most adaptable. Beattie expresses surprise at the amount people find to do. There is truth in the image of the ex-working man diffidently queuing at the checkout in Tesco's with women his daughter's age; then returning home to watch *Afternoon Play*. The unemployed man in a low threshold virus and only seems to be in these most susceptible. The middle-aged working class man with a strong commitment to work and some sense of complaint to begin with, who has

been unemployed for a long time, sinks into a deep psychological and physical quagmire. For the young, though, there always seems to be some alternative, even if only religion, disco and a spot of extra-legal "bobbing and weaving".

If you want to hear Sheffield, you'll find it in the Human League or ABC, both local bands. That's the stuff they're made of. They're the ones who always seem to be the strains of Frank Sinatra. One of their own sort, Frankie, rich, flash, been known to bob and weave a bit in his day, above all a survivor.

Jim Wein



An illustration from *What About Drugs?*, a 32-page large-format booklet by Angela Cotton which, with the use of case histories, looks at all aspects of the use and abuse of drugs, including alcohol and tobacco. Foulsham Educational £1.75 (£1.50 each for orders of 20 or more).

Mixed messages

The study of the way human society works occupies a broader spectrum of the timetable than the straight and relatively narrow path of O and A levels.

There is home economics for example. Margaret Pictor's *Understanding Community* (Blackie £5.25, 0216 91734 4) is intended to cover the social studies component of the new GCSE National Criteria for Home Economics and takes in local and central government, public health and social services, voluntary organizations and services, the rights of the citizens as consumers, as well as issues of work and leisure, law and crime. The language is clear and simple, the type is large and the text is broken up by bright and breezy illustrations. Each chapter has a Think and Do section with questions calling for investigation, interpretation and decision-making, as well as straightforward recall and deductions from data.

Social issues can also penetrate the world of teaching English as a foreign language. Faces of Britain by Elizabeth Laird (Longman £3.25, 0 582 74520 3) is a handsome little book of coloured photographs, like one of those glossy leaflets around in planes to introduce visitors to the British way of life. The text covers such themes as the identity of citizens of the UK and their class system, work in city and country, national institutions and leisure activities. Each topic is personalized with an interview and each section is followed by comprehension questions on main ideas and detail, with language work based on grammar, vocabulary and the understanding of idioms.

Living in a Democracy (0 550 70210 5) and Changing Society (0 550 70211 3), both by David Griffiths and Ian Gilliland at £2.50 each, are the first two volumes in Chambers' Modern Studies Series, to be followed this Autumn by *Multicultural Britain* and

The Third World. They are slim, large-format books designed to meet the needs of the Scottish Standard Grade Modern Studies course, though of course they have a wider use in the classroom. They include graded tests and a careful explanation of language used, to enable work to be done at all ability levels.

The well-established Checkpoints series from Edward Arnold reaches No 31 with *Damian Randle's Population and Food* (0 7131 0951 3) and No 32 with John L. Foster's *Work and Leisure* (0 7131 0835 5) at £1.30 each. These are well-designed A4 pamphlets with one double-page spread per topic, filled with really adventurously chosen up-to-date extracts and illustrations, as well as imaginatively-conceived discussion suggestions.

The Longman Science Studies series is another well-tried series, much used in the fourth and fifth secondary years as well as in further education. Richard Cootes's *The Family: an Introduction to sociology* (£3.35, 0 582 23505 7) re-appears in a second edition with updated statistical material and, as the author puts it, an attempt to accommodate "some of the challenging perspectives on the sociology of the family that have gained prominence since the first edition was prepared". Philip Gabriel's *British Government: an Introduction to politics in the same series* (£3.95, 0 582 22480 2) now reaches a third edition, and has a similar updating, and beyond the 1983 General election.

Now for the examination grind. Vast numbers of students all over the world have seized upon the M&E Handbook series, either for pre-examination revision, since so much information is packed into these books, or (whether they ought to or not) as a straight textbook. The series has been taken over by Pitman, and a new volume, *Sociology 'O' level*, by F Randall (£5.95, 07121 0199 3) is specifically for

students working for the AEB and Oxford Delegacy O levels in sociology, but with relevance also for the M&E Social Science O level and A O levels in Social Studies and Sociology. The author stresses that this concentrated bonfire of a handbook is not meant as a substitute for wider reading, and that sociology itself is not just an academic study, but "a means whereby people can gain fresh insights into the ways in which their society works".

P J North's *People in Society: An Introduction to Sociology* (Longman £4.95, 0 582 33210 9) is a well-tried textbook, firmly rooted in years of classroom practice which now reaches a third, revised edition, intended (in conjunction with a companion volume of extracts called *Understanding Evidence*) to meet the new GCSE needs.

Some years ago the British Sociological Association, feeling that the standard textbooks intended for the sixth form and for first year students in higher education were long on theory but short on the experience and interpretation of research, sponsored a book of its own. It was a collection of essays from well-known practitioners intended to provide beginning students with a "taste" of sociology through accounts of research, its methods and problems. The response to the original limited circulation was encouraging and the editor, Robert G Burgess, has consequently expanded and updated the volume as *Exploring Society* (Longman £5.50, 0 582 25489 7). Its 11 chapters include David Morgan on gender and the family, Colin Bell on work, non-work and unemployment, and Margaret Stacey on the sociology of health, sickness and healing. The book is a good reminder for students that sociology may be a hard academic slog, but that it is also about finding our way through real human predicaments.

Colin Ward

Moral dilemmas

What About The Law? By Carol Parsons. 0 550 7521 2. Who Do You Think You Are? By Sue Armstrong. 75211 0. Smoking: What's In It For You? By Sue Armstrong. 75213 7. So You Want To Try Drugs? By Elizabeth and Alexander McCall Smith. 75212 9. When Parents Split Up. By Ann Mitchell. 75214 5. Chambers £2.95 each. School edition £1.95 each.

Chambers' *Teenage Information Series* covers a range of topical issues that young people are very aware of and frequently need guidance on. The

books are designed to provoke thought and stimulate discussion, though they achieve this in a conciliatory approach towards the often difficult moral issues under discussion.

What About The Law? stresses the many different areas the law is involved in and how it cannot be avoided. The role of men and women, how opinions are formed, and attempts to help teenagers become aware of the social influences around them are considered in *Who Do You Think You Are?* The books on smoking and drugs do not shy away from providing explicit facts about use and effects. This is

done so that teenagers with a proper understanding can resist the pressures of friends and even persuade others against taking drugs.

Explaining the reasons for divorce needs considerable care and attention. *When Parents Split Up* tries to answer questions about divorce but emphasizes that there are different answers for different families. Feelings and emotions are explained as well as some of the legal and formal aspects of divorce: a valuable book for both pupils and teachers as well as parents.

R E

Political balance

Politics: A New Approach. By David Roberts. Causeway Books £4.95. 0 946183 25 2. **Examining British Politics.** Third edition. By A J Baker. Hutchinson £4.75. 0 09 165551 X. **Political Realities: Parties and Pressure Groups.** Second edition. By W N Coxall. Longman £4.95. 0 582 35189 8.

You and the Law. By John L. Foster. Edward Arnold Lifescan series. £2.15. 0 7131 7348 3. **Citizen 16+.** The Civil Law and You. By Brenda Mothershead. Macmillan £5.95. 0 333 36794 4. **Modern Society: A Social Studies Course.** Third edition. By Jack Nobbs. Allen & Unwin £5.95. 0 04 301245 0.

Most recent politics textbooks claim to offer a conceptual approach to the understanding of politics with the treatment of issues thrown in for good measure at the expense of political institutions. However, the problem for writers of such books, at O level and now for the GCSE, and especially if they make the typical claim of being a useful introduction to A level, is to keep a balance between information, issues and the traditional constitutional content. Two books, one new and the other in its third edition, provide interesting contrasts and similarities in this approach towards politics.

For £4.95, David Roberts offers 342 pages to combine a conceptual approach that introduces basic political institutions and procedures, while at £4.75 A J Baker offers 272 pages to place politics in a broader context, though not completely rejecting the institutional approach. Roberts has sub-divided each chapter with useful data response questions with varying degrees of difficulty whereas Baker has the more obvious essay type questions, also after each sub-section. Both books rely heavily on extracts from books, journals and newspapers; possibly Baker has the wider selection but Roberts is more contemporary. The different emphasis the authors attach to particular themes is reflected in the use of cartoons, photographs, diagrams and extracts.

Roberts devotes a whole chapter to political communication – the press, television, ownership of the media, the lobby, opinion polls and, interestingly, the use of referenda. Baker includes political communication within a chapter on attitudes and behaviour. *Politics: A New Approach* has a more sociological stance: the publishers and the author have a shrewd eye for picking recent photographs such as GCHQ demonstrators and Dianne Abbott, who may become Britain's first black MP.

Examining British Politics, which has been extensively rewritten, has more detail concerning the mechanisms of institutions, for example *The Times*'s listing of the 1984 Cabinet Committees that blew the pretence of the secrecy of these committees. In one sense Roberts' book is easier to use with clearly defined sections and key terms and concepts printed in a bold typeface and may be more appropriate for the GCSE. However, Baker does have a more thorough index and arguably a more detailed analysis on certain topics.

Substantive changes have been made to the second edition of *Parties and Pressure Groups* which continue to make this book an invaluable reference to the internal workings, factionalism and functions of parties and pressure groups, with, for instance, new sections on the SDP, Northern Ireland, the extreme Left and extreme Right, and the 1983 General Election. What constitutes the law, what rights children have, consumer rights and employment protection are just some of the topics covered in the next two books. *You and the Law* is a simple introduction to the law as it affects young people, appropriate to the middle to upper secondary age-range. Sensible follow-up work in the form "For Your Folder" supports each section. *Citizen 16+* is aimed at the pre-vocational student though could be useful for GCSE courses. This valuable book does fulfil its purpose of being both self-instructive and introducing the student to the communication skills related to the law.

In its tenth year and now substantially revised third edition, *Modern Society* continues to be a lively multi-purpose resource for any social studies course as well as being suitable for all ability groups. Each unit contains a brief summary of the GCSE aims and objectives.

Richard Evans

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Gerard O'Donnell
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BOOKS IN CLASS

Physical change

GCSE Physics. By Tom Duncan. Murray £5.75. 0 7195 4232 4.
Physics for GCSE. By Brian Johnson. Heinemann Educational Books £3.95. 0 435 6750 5.
The World of Physics. By John Avison. Nelson £5.50. 0 17 438 238 3.

Will GCSE textbooks be different? Should they be expected to reflect the new aims of the National Curriculum? Will they dare to reduce content; be imaginative enough to encourage new teaching and learning styles; large enough to cover applications and implications; aware enough to avoid stereotyping and provide a few course-work assessments along the way? The first crop of GCSE physics books have different origins. The Avison is simply a reprint of a book published two years ago, with only the cover changed. Duncan has revised his *Physics for Today and Tomorrow*, while Brian Johnson, we are told, has started from scratch. It is interesting to compare how they relate to GCSE criteria.

Not surprisingly, none have gone for reduced content, since there is little evidence that the syllabuses have. Each has a comprehensive range of topics including electronics, differing substantially in the detail and depth of treatment. Also predictable is the lack of any new teaching or learning ideas; perhaps this is not the function of a textbook, but I had hoped for some more open questions, and perhaps some links to other areas of the curriculum. Avison at least has a few historical and aesthetic touches, and Johnson a topic on Einstein. The

general tone, however, is very predictable. Practical work is handled differently in the three books. Avison and Duncan give fairly full details of standard experiments and demonstrations. Johnson leaves these out, including practical work only by implication in the text. He does, however, include some open-ended design and problem-solving questions, which are notably absent in the other two books.

The books are relatively free of stereotyping, though they are not very strong on generating positive images of women or black people doing science. Johnson has sacrificed most of the human involvement in the interests of brevity. Avison has plenty of space but still a minority of women, while black people appear as runners and operators of simple technology. Duncan has few photographs of people, but plenty of pupils drawn with the diagrams of experiments. Avison is particularly strong on applications of physics with "technology boxes" throughout and special sections on the social aspects of energy, radioactivity, electronics and sound. He even touches on implications in some of the opening paragraphs to chapters. Duncan has some good technical illustrations, but brevity has ruled out any discussion of implications and social issues - the dangers of radioactivity rate 100 words, for example. Johnson has the useful double page spreads after each of the nine chapters, on topics such as energy's resources, space travel, radiography and information technology.

In summary it seems to make little



SCIENCE

difference whether the books were written before or during the development of GCSE syllabuses, as to how they shape up to the criteria. What is significant is how they have addressed the issue of differentiation. Avison is clearly an O level book. In size, complexity and style. It is even advertised under a reviewer's comment "the successor to Abbot", which is an accurate description. The new book by Johnson seems firmly in the CSE market with its simple didactic style, and a double page spread for every topic. Duncan, by contrast, has attempted to cover a broad range of ability. The book is intermediate in size and in style between the other two. For example, double spreads are used but not exclusively. Many of the questions are set at two levels, core and further; a method of differentiation being used in many of the examinations.

These textbooks are a fair reflection of the GCSE physics examinations, rather than of the high hopes in the National Curriculum. Duncan appears the most generally useful, but both Avison and Johnson will be more appropriate for less "average" students.

Martin Hollins

Supporting role

Essential Science: Biology. By R H and J J Stone. Oxford University Press £2.95. 0 19 914098 7.

Here is another GCSE biology textbook entering a market place that is already super-saturated. In view of this competition it is to be expected that new publications would offer something different from that given by their competitors. So, what has *Essential Science: Biology* to offer? It has many black and white line diagrams, charts and tables, which it is claimed "all help to summarize and clarify the basic ideas", but there are several places where this goes sadly wrong. For instance, in the section on "How the kidneys work" (p 44) there is the description of the process which occurs in Bowman's Capsule "the process is called pressure filtration and the liquid which collects in the capsule is called the glomerular filtrate", but on the diagram the process of the passage of substances is described as "absorbed from the blood" and this could confuse rather than clarify for some children. A few of the diagrams are poor; worst of all are those in the sections on tropic responses (pp 58, 59 and 89) where seedlings look like sausages with bows on. Others have careless labelling. The diagrams of sensory neurones have terminations labelled "sensory organ" on page 65, on another (p 68) "sense cell".

The book is supposed to be used either as "a support for an examination course or as a focus for revision".

Jackie Hardie

"for students working towards GCSE... so it is to be expected that the content would cover the four themes of the GCSE criteria and perhaps the content of most of the syllabuses. Theme 2 of the criteria, which deals with the inter-relationships of living organisms and the environment, which is perhaps, the main GCSE content innovation merits just a few pages out of 149. The "social and technological implications of Biology" receive derisory treatment. Even in the part where this would be expected to be found, in "Economic Importance" in the section on bacteria, fungi and viruses, there is mention of decomposers, gut bacteria and pathogens, but there is no sign of biotechnology here or even food manufacture. And the old fallacy technology, "alcoholic fermentation" merits only five half column lines in the section on "respiration".

The book is designed for students of "various abilities", but when sentences are easily hydrolysed to monosaccharides by traces of acid and by specific enzymes. They are sweeter, more soluble in water and diffuse more slowly than monosaccharides (p 5) (or, more often, inferred) about the way in which the plants were presented in Athens some 2,500 years ago. But, at the same time, both were agreed that these are enthralling dramas on universal themes and that, as far as translation allows, the spirit and poetry of Sophocles should be allowed to speak for themselves.

They have worked on the project for three years. Don Taylor talks about it with urgent enthusiasm. Louis Marks with a hint of amused detachment. They clearly interact well and have previously collaborated on a number of productions, including Don Taylor's

Studies in Advanced Biology Series 1
The Eukaryotic Cell. 0 631 90930 3. 2
Genetic Mechanisms. 0 631 90950 8. 3
Enzymes, Energy and Metabolism. 0
631 90940 0
By M R Ingle.
Basil Blackwell £3.95 each (trade).
£4.95 (trade).

It is so refreshing to read a level science materials which sound as if they were written by a human being! The text is lively, at the correct language level and communicates enthusiasm without falling into the temptation of being jokey.

The three books aim to extend the content of a general textbook concentrating on topics which have recently undergone most change. In fact, frequently, these books would more or less replace a general textbook. The format of the books is helpful; a summary opens each chapter, there are frequent illustrations and tabulated information, regular sets of questions with numerical answers in the back of the book, and, at the end of each chapter there are "study guide" sections. These help the student focus on new vocabulary and the main concepts presented and ask extension questions. Each book has a good glossary.

Anne Cullen



Brown Long-eared Bat: its ears can be erected for flight or folded at rest. From *The Secret World of Bats* by John and Molly Hines, a charming study which presents the creatures in their "true light" as "gentle, intelligent... endearing" animals (Methuen £4.95).

Further science reviews in this week's Extra, pages 43-54.

CHILDREN'S LITERATURE

Toppers series
Well and See. By Vivien Alcock. 0 233 97952 2. A Job for Merv. By Alison Prince. 97947 6. The Chocolate Candy Kid. By Sheila Lavell. 97948 4. Greedy Alice. By Helen Crewwell. 97951 4. ESP. By Dick King Smith. 97949 2. The Second-hand Ghost. By Mary Hoffman. 97950 6. Marilyn Mallin Books £2.50 each.

So 'spoil for choice as we nowadays find new real books for the six-to-dines that good paper, wide margins and top contributors are coming as standard; and these are certainly part of the deal with the new Toppers series, a package operation from the Bellinda Press published by Marilyn Mallin and André Deutsch, "an excitingly different series of books that children will want to read". Each book has 48 pages of smooth, cream paper, appealing with a variety of illustrative styles and a clear typeface. No one has measured the

lengths of words and only a couple appear to have measured sentences. But what of the writing? If the overall look of the series lacks the style of *Bananas* (Toppers) there are two front-running titles here which children would willingly read off a dense and smudgy duplicator.

True to form Dick King-Smith has written the real stuff in *ESP*. Its tone really does lack the condescension the publishers claim the whole series lacks and its story (of a pigeon and a tramp who have a winning streak at the bookies) is modern, funny and has an acceptable dose of moral at the end. It values less on illustration than some of the others, but Peter Wingham's pictures are stylish and witty. It's a book for any shelf and it needs to have room found next to it for Alison Prince's *A Job for Merv*, a laid-back and uncompromising story of an out-of-work punk who bridges the age gap when he goes to work for a severe old woman called Pike. Agatha Pike. Miss. It has that cumulative shape, which so many good folk tales have, is funny, and is carefully illustrated by David Higham.

The appeal of both these books is that they don't appear to be trying too hard to address themselves to a literary audience; they don't know off with a

mature knowledge of the modern child but are, simply, good books. The others in the series read too much as if they've been written for the job and are not "different" (as claimed) at all. Sadly, Vivien Alcock's *Well and See* also has a predictable plot and a slimming "Fatso" (I feel very sorry for fat children who physically or emotionally cannot slim and lose the hateful label); and although Sheila Lavell has humour and illustration Glenys Ambrose on her side, her story has a dodgy denouement when by burning down a school shed *The Chocolate Candy Kid* wins the much-needed insurance pay-off. In *Greedy Alice* Helen Crewwell borrows heavily (without obvious gain) from *Alice in Wonderland*, while Mary Hoffman's *The Second-hand Ghost* somehow fails to tickle, excite or move the reader. And even she doesn't reflect Britain with a black character: none in the first batch. Did someone get the package wrong?

So it's two out of six for the publishers; but that could mean two out of two for the buyers, if they're choosy - and I think they must be at £2.50, however good the paper.

Bernard Ashley

ARTS

Masks and buskins out

Robin Buss previews BBC2's production of 'The Theban Plays'

Belief in the continuing relevance of classical drama may be a necessary precondition for any successful modern production of Sophocles, but by itself it does not get you very far. The first dilemma was described in Kenneth MacKinnon's recent book on cinema versions of Greek Tragedy: "a director can opt broadly for the 'theatrical', 'realistic' or 'filmic' modes, or diverge into 'meta-tragedy'. As an example of the last, he cites Pasolini's *Oedipus Rex*, where the myth is reviewed with overt reference to Freudian, Marxian and other post-classical perceptions. The result may be, as Pasolini remarked, the 'most autobiographical' of his films, but it is not Sophocles."

"Meta-tragedy" is not the approach chosen by the producer and director of *The Theban Plays* (to be broadcast by BBC 2 on September 15, 17 and 19). One strength of the productions lies in the early agreement on strategy between producer Louis Marks and director-writer Don Taylor. Masks and buskins were out; there would be no attempt to imitate what is known (or, more often, inferred) about the way in which the plays were presented in Athens some 2,500 years ago. But, at the same time, both were agreed that these are enthralling dramas on universal themes and that, as far as translation allows, the spirit and poetry of Sophocles should be allowed to speak for themselves.

They have worked on the project for three years. Don Taylor talks about it with urgent enthusiasm. Louis Marks with a hint of amused detachment. They clearly interact well and have previously collaborated on a number of productions, including Don Taylor's

verse drama *The Testament of John*; and it could be that their personalities are particularly suited to the appreciation of Sophoclean drama, with its contrasts of philosophical reflection and intense emotion. Certainly, neither of them seems to doubt that the work of this dramatist, who appears in some ways more remote from us than Aeschylus or Euripides, can appeal to a modern audience.

Don Taylor says: "I don't like film." He prefers the immediacy of live theatre and the opportunities that the stage gives to both actors and directors. The point is made in his preface to the edition of the three plays, when he emphasises that each performance is the result of a unique collaboration. The three plays, *Oedipus the King*, *Oedipus at Colonus* and *Antigone* were filmed as theatrical productions, each recorded twice before editing, so that the actors could live their parts as they would on stage. In fact, Louis Marks recalls, when they were filming *Antigone* and had time left at the end of the day, they decided to run through the first part of the play again. When it was time to pack up, the cast were so absorbed that they were very reluctant to break the movement of the drama.

Antigone is the most obviously accessible of the three *Theban Plays* for a modern audience: the 20th-century parallels to its story of individual v. state morality hardly need underlining. As for *Oedipus the King*, Don Taylor describes it as "an investigative mystery" which, in its own way, is as interesting, as though, for the play to be interesting, it has to suggest *The Mousetrap*. It is not suspense, but, as Taylor agrees, dramatic irony that carries the play as Oedipus pursues his self-destructive urge to discover the



Juliet Stevenson as Antigone

make "meta-tragedy" from the raw material provided by classical writers or for a director to make an exciting film about incest and murder, with the occasional reference to ancient Thebes. But to accept the challenges and the problems of offering Sophocles to a modern audience is rather harder. These plays do that, and, at the very least, there will be many students of classical studies, drama, civilization

and literature in translation who will be grateful for versions that are clear, convincingly acted and enjoyable to watch.

* Kenneth MacKinnon, *Greek Tragedy into Film*. Published by Croom Helm, £22.50.
† To be published by Methuen on October 9 at £1.95.

Extra-curricular

Welcome back at the start of a new term. Channel 4's *Comment* (September 1 to 4) gave a teacher, two sixth-formers and a representative of the London Parents' Action Group a chance to air their views and there were slots on the ITV and BBC local news programmes after the evening. Otherwise the curriculum is much the same as last year. The emphasis in History is on the kind of investigative assignment work that we will need to prepare for GCSE. BBC2 (Screen-Play, August 27 and September 3) presented us with the evidence about the deaths of Mozart and Marlowe, inviting a large jury to deliver its verdict on how they died. Although the witnesses are necessarily beyond the reach of some cross-questioning, the formula is irresistible and *The Marlowe Inquest* succeeded remarkably well in clarifying the intricacies of

Elizabethan politics. It even got you asking the right kind of questions and wishing for a more recent assessment of the medical evidence. Channel 4 was filmed in 1978. In answer to the common prejudice that Africa is a continent with no history, one can only say that, even if this were true, no history is better than too much. The Africans have too much.

South Africa: After Apartheid (Channel 4, September 4) bravely tackled the options following what even the South African ambassador concedes is inevitable, though with the warning that we are likely to attribute "a degree of rationality that simply does not exist" to those involved. I turned to *Banana Day* (Channel 4, September 9) for briefing on the implications of the Non-Aligned Summit in Harare, assuming that I would not find much elsewhere, but was disappointed by Dariusz Howe's meagre report; however, the program me continued with the story of the local and local government responses to the needs of the black community in Liverpool 8. Michael Showers gave us a guided tour of the "improvements" ("I do not know of anybody who has benefited from Heseltine's Garden Festival"), while Derek Hatton's attempts to answer accusations against the Labour council ("They don't want to absorb black

people within the employment figures") contrived to make excuses ("we certainly haven't gone anywhere near far enough") sound like good intentions.

There is a definite weakness on the Science side, though Channel 4's new *Equinox* strand (Thursdays) is a very promising effort to introduce a broad-based technology course. *Bodymatters* (BBC 1, September 5), on the other hand, with Dr. Graeme Garden flourishing inside a plant brain, is more representative of the sacrifice of content to slapstick in General Science. But, despite the Governing Body's failure to provide adequate facilities, we are doing exceptionally well in sport, notably athletics. The European Championships in Stuttgart got good coverage on all channels and provided several memorable occasions. The attempt, however, to manoeuvre their pronunciation of foreign names: even the Frenchman Capitan became unrecognizable (Capitane? Capistene?). But then our record in modern languages has always been pretty abysmal.

The Marx Memorial Lecture, by Professor Gerry Cohen (Opinions: the Triumph of Capitalism, Channel 4, September 9), ought to have been well attended, because it made good sense,

though perhaps, as Denis Worrall would say, tending to attribute to Economic Man "a degree of rationality that simply does not exist". With lots happening too in Drama, Music and General Studies, we can prepare for a stimulating term's work.

R B

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DENT



Compacted wisdom

Acorn's new Compact computer is the baby of the BBC Master series. Basically an 8-bit 128K machine, the Compact is broadly designed as a retail machine aimed at the home, small businesses and education - in particular primary schools. However, it is possible (using a £40 connection), to use it within Econet systems, most of which are found in secondary schools. The Compact comes in three parts -

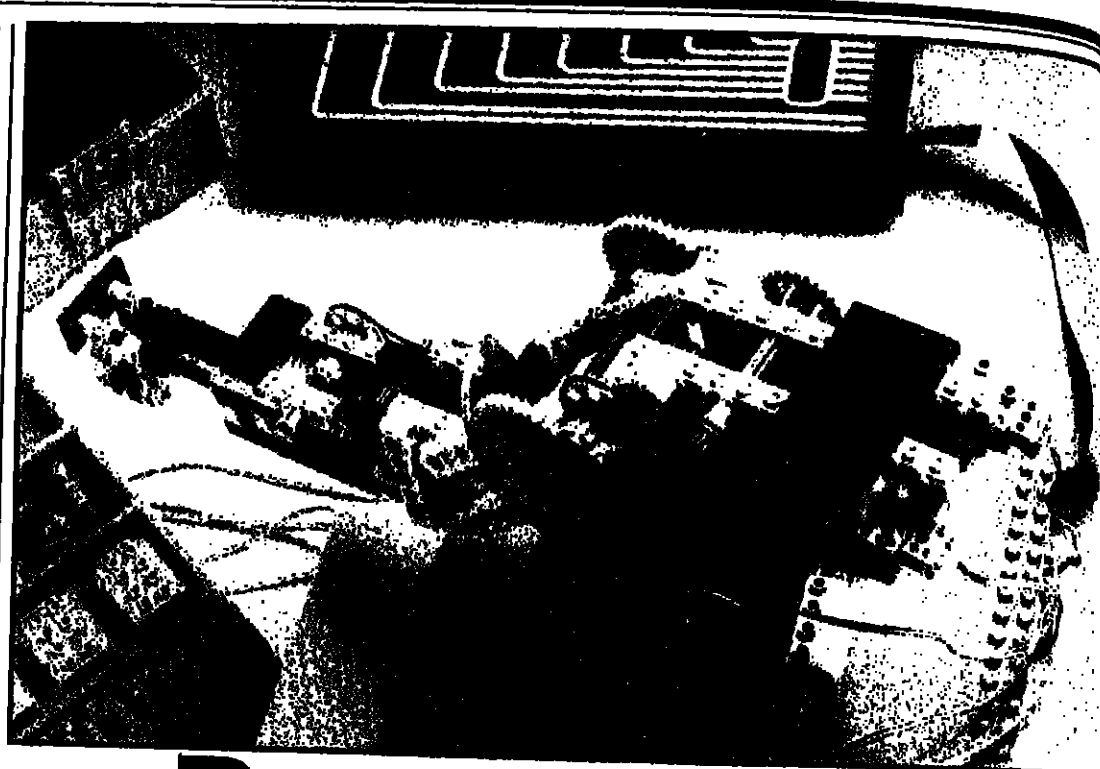
a keyboard containing a BBC Master board and a separate box containing the power supply and a 640K 3.5in disc drive, on which a monochrome or colour monitor can sit. The box and keyboard can also be linked to a television set. Because the power supply is in the box, the monitor does not have to be plugged in separately.

Recommended retail prices are £399 for box and keyboard (no monitor); £469 with a monochrome monitor and £599 with a colour monitor. These prices don't include VAT. Software supplied with the machine includes BBC BASIC, Logotron Logo, Acorn's wordprocessing system, View and ABC, a primary age wordprocessor. Additional options include ROM (Read Only Memory) software and a ROM Econet cartridge, a second disc drive, a mouse or joystick and a TV modulator.

Unlike the Electron, the Compact can be linked to teletext systems. Most BBC model B software is compatible, says the company.

Acorn say that the Compact will be available before Christmas. It will be reviewed in *The TES Computer Extra* on October 24.

Carolyn O'Grady



Programming with your hands

Those of us who thought they had just about got the hang of running simple programs on a computer, may have noticed recently that there is a new threat. This phenomenon comprises wires and buffer boxes, motors, electrical parts and other items specifically designed to trip up the best prepared teacher. It is called Computer Control.

We are led to believe that there are a dwindling number of places in the curriculum that are really safe from the influence of computer control. It seems capable of crossing subject areas with little respect for the subject specialist, and can even extend both the primary and secondary curriculum.

So why should we take note of this new subject, and how are we to see through this maze of technology into purposeful classroom activity? What does computer control offer us?

First computer control is not only about computers controlling things but about children controlling computers, which would seem actually to be about children thinking, developing strategies, testing ideas, developing logical reasoning about how computers work in the real world. As with any practical subject, the process is one of direct experiential learning and in this case children are able to set and explore their own challenges.

How might we recognize this activity taking place in, say, the primary school? Well, alongside the glue, scissors and card we might see a computer, a few motors and lights, and maybe a handful of Lego bits. We could think of this as surely extending the resources available to the children and in the best "design-and-make" tradition, using their imagination to create the model, then using the computer to make it come to life, by a process no different from programming the classroom turtle.

The computer should be seen as a natural tool, and the choices of the materials be such as to make the assembly of a control program as easy as the assembly of a model - "Lego programming". Examples of models developed in this way are a variety of motorized trolleys, hoists of one type or another, a burglar-proof dolls house. But the outcome will seldom be as much importance in educational terms as the process by which they were arrived at.

And the secondary curriculum? Here we could expect to see computer control in the specialist areas of computer studies and Craft, Design and Technology, and increasingly as a component of Information Technology awareness courses; for it would seem an excellent practical topic capable of revealing through "hands-on" activities how computers work and what they are capable of doing in the world around us. For example, the might expect to see the creation of a range of models of "intelligent" systems: automatic doors, robots, vending machines, washing machines etc.

The new GCSE computer studies calls upon teachers to present resources for project work that reflect the full range of computer applications. Computer control provides rich opportunities, but here, unlike in CDT, few marks could be directly awarded for constructing the systems model that is to be controlled, for it is the way that the computer is used, the way the system problem is investigated and the solution (or control algorithm) developed, that is important. The aim should be to create uncomplicated solutions to structural and mechanical considerations and to allow for rapid modification.

Wires, buffer boxes, motors and electrical parts - all add up to Computer Control. Mike Bostock reports

Within CDT courses the emphasis is almost entirely the other way around. "Design-and-realization" is now the message, and the choice of materials, the design of function and translation to a specific structure and mechanism are fundamental to the overall process. So, without microprocessor control it would be necessary to develop control algorithms without having to learn a computer language. A high level control program seems a natural choice.

In CDT we would expect to see motors and sensors supplemented by traditional construction materials, but elsewhere Lego, Fischertechnik, and Meccano would all be appropriate. The actual choice depending on the sophistication of the model to be built, the range of sensors available, and the ease with which the material can be wired up to a computer.

The "buffer box" is the box which plugs into the computer, provides power and exchanges signals with the model to be controlled. There is a range of companies and organizations advertising such devices, such as Unilab, Deltronics, Griffin and George, AUCBER, Kilo, Driver, Banana etc. It is also possible to make your own, with support available from the local SATRO or from Microelectronics Education Programme publications. Whether bought or homemade, it is important that the interface can do everything required of it and can provide the correct voltage and current values for the models to be controlled. Furthermore, it is important that the buffer box can be controlled by the chosen language of control program.

The choice of control language is very important, for it becomes the thinking medium of the child and as such it will govern the way in which a child will develop thinking skills in relation to creating logical algorithms.

LOGO for example, are capable being modified by the addition of routines on disc so that they can control the computer not just, as BASIC, there is no graphical display help explain what is happening at control level. A purpose-designed control program containing the practical approach of Logo but with additional control process features would be a far better option.

One of the best Logo-style control programs will not cost you anything (except for the cost of a blank disc). *Control-IT* is freely available without UK local authorities. It was produced to accompany the MEP "Computer Education Industrial Data Processing Pack", and is a follow-up to an earlier control program called *Micro-IT* which was very popular with primary teachers. *Control-IT* shows its pedigree in the range and sophistication of commands available to the child and the screen "instrument panel" which allows a child to study the effect of individual commands upon the signal that control the model. *Control-IT* also controls most buffer boxes that are from the user or printer ports of the BBC Micro. This includes the Deltronics and new Lego interface.

Control-IT is another language from MEP that is available from your L.A. adviser. This has the effect of adding new commands to BBC Basic that allow expressions to be used which are comprehensible to computer scientists and physicists alike. For example "MAKE BIT 1 HIGH" would turn on line 1 of the port. Other commands are available which provide sophisticated features like motor speed control and data capture. So where Basic is being contemplated, *Control-IT* will probably be better.

Integrated packages are appearing which contain everything you require in the way of hardware, control programs and classroom materials, and these can provide a packaged solution to the problem of getting started in this subject. As examples, we might examine the Cambridge Microtech "Control" kit for primary work, the Lego/MEP "Programmable Systems" course for IT awareness courses, and the MEP *Control-IT* materials.

With such resources becoming available, it is now feasible for schools to become involved with this rich new area of learning - the creation of systems that can function - or "program" with your hands" as it has been called.

Mike Bostock is Adviser for Computer Education with the London Borough of Redbridge.

References:
1 Programmable Systems - LEGO UK Ltd, Ruffin Road, Wrexham
2 Control-IT - RESOURCE, Essex Road, Off Cavendish Grove, Doncaster
3 In-Control - Cambridge Microtech, Maden Way, 1212 Cambridge Road, Great Shelford, Cambridge

Out of our minds?

Joan Freeman previews Channel 4's season on mental health



MIND'S EYE SEASON
Living with Schizophrenia
October 10-24
A Change of Mind
November 14-December 19
Also: History of Psychiatry, Madness Museum, Out of Our Minds October 1-3; The Price of Tranquillity (Well Being), October 9; Mistaken for Mad, October 31; Italy's Mad Law (Well Being), November 7; We're Not Mad We're Angry (Eleventh Hour), November 17.

The human mind is as prone to sickness as the human body. Almost everyone will suffer some mental ill health during a normal lifetime, and like the common cold, it won't need treatment. But when distressing symptoms become intolerable, the medical profession is usually asked to help.

Just as with teachers, psychiatrists are subjected to public and particularly media opinion as to how they should proceed with their business. The treatment of mental illness has become a political issue, the left claiming that psychiatrists are the "soft police" of the government, determined to fill their hospitals with the victims of society. The right also denies the validity of mental illness; for them payment to a psychiatrist should put the matter right.

The major contention between the opposing camps at present is whether the mentally ill should be out of hospital or in. Outside they face the hassle of daily living as well as an often hostile and ignorant populace. Inside they may deteriorate by becoming

institutionalized. But there are now many ways available to assist recovery, such as sheltered accommodation, half-way houses and day-hospitals.

Channel 4 has commissioned two series of Friday night programmes, *Living with Schizophrenia* and *A Change of Mind*. These are designed to inform and to break down prejudices, by involving viewers in understanding what mental illness is like, how the afflicted cope, and what sort of treatments are available. There are about six producers who are always on the side of the patient in his suffering, but who are helping them. *We're Not Mad We're Angry*, the *Eleventh Hour* report, is devoted to four "survivors" who "felt diminished by psychiatric treatment"; in part they seem to be blaming the treatment for the effects of the illness itself.

The tenor of the booklet which goes with the programmes is against the use of psychiatric medication, such as tranquilizers. Instead it promotes talking treatments, notably Freudian analysis and some rather more esoteric procedures such as psychosynthesis and the work of Wilhelm Reich, almost none of which are available outside London. You would have to search hard to find a mention of either clinical psychologists or psychiatric nurses. However, there is a useful list of places to contact in time of need.

The season, which includes two repeats from the "We Being" specials on mental health, is introduced by three historical programmes. One is a dramatization by Ken Campbell of a young doctor being shown around a Victorian lunatic asylum, where

stereotypes abound. Treatment there is essentially torture.

The three well balanced programmes on schizophrenia show poignantly the effects on the family. For them, the agony comes not only from the illness itself, with its draining insecurity of not knowing what will happen next, but also from the attitudes of others.

In one scene the mother of a schizophrenic spoke about the law which makes admission to hospital (in almost all cases) voluntary. Her son, mentally ill and not responsible for his actions, destroyed years of his life because he was incapable of making the decision to admit himself. Eventually, she found a route, via the police, to get him to hospital treatment and only then could he have some semblance of a normal life.

A modern psychiatric hospital is a place which is peaceful and where a disturbed person can be looked after during the acute phase of the disease. Sometimes the only alternative is prison. Neither the images of Victorian torture, nor the disparaging attitude to medication are designed to boost confidence.

Most people are not familiar with mental illness until they have contact with it. Getting to know the people on the screen provides a valuable introduction. But the season is not easy viewing, not only because there are so many hours of it, but because listening to people trying to talk about their emotional problems can actually be tedious. It is an important attempt, though, at educating the public to these private experiences. It should be seen by schools but like all strong medicine, be taken with care.

briefings radio & tv

GCSE SPECIAL: REVOLUTION IN THE CLASSROOM
(Sunday, 20.10 BBC2)
What differences will the introduction of GCSE make to teaching styles and the teachers' workload? Will the new system provide a fairer assessment for all children? This programme focuses on two schools, one in rural Hampshire, the other in Manchester, and investigates how staff, pupils and parents view the new exam.

For schools

TUTOR GROUP STARTERS
(Monday-Wednesday, 11.00 VHF4)
Steve Blacknell presents this series of 10-minute modular programmes to help secondary pupils in their personal and social development. The three problem areas concentrated on are "myself", "families and friends" and "decision making".

MINI-ENTERPRISES
(Monday, 11.19 ITV)
A two-part introduction to the setting up of challenging enterprises with groups of young people. This week teachers see the trials and tribulations of a variety of mini-enterprises. Next week looks at an award-winning project.

TAKING SIDES
(Monday-Tuesday, 11.40 VHF4)
Material for use in tutorial work offers a number of starting points for informal discussion. Topics include personal relationships and issues of general concern.

SCIENCE AND TECHNOLOGY
(Monday, 11.41 ITV)
A new series for exam pupils throughout the ability range. Shows the work of scientists in industry and their approach to the solution of everyday problems, some of which are suitable for experiments in the school lab.

BLACK BRITISH
(Monday-Friday, 14.00 VHF4)
Upper secondary pupils are made more aware of the long history of "Black British" people through five studies of historical figures who played an important part in the community. A brief summary of their career is followed by a discussion with people working in the same field now.

BOOKS, PLAYS, POEMS
(Monday-Friday, 14.30 VHF4)
This series for O level and some CSE students presents a dramatization of "Macbeth" in five parts with a summary of the play and suggestions for follow-up work.

TALK, WRITE... AND READ
(Wednesday, 9.42 ITV)
New programmes aimed at introducing seven to nine-year-olds to different ways of looking at and using language. "Rosen's Writing Guide" is to stimulate both writing and reading.

SAFETY FIRST
(Wednesday-Friday, 11.40 VHF4)
A short group of three two-part programmes highlighting possible dangers in everyday life in the home, in the factory and on holiday. The first programme for school-leavers presents a fairly light-hearted story followed by an interview session.

CRAFT, DESIGN AND TECHNOLOGY 5
(Thursday, 10.45 ITV)
A new series for GCSE students made entirely on location and focusing on skills, products, materials and processes appropriate to the exam syllabus.

BEST OF WAVELENGTH
(Thursday-Friday, 11.00 VHF4)
A selection of interviews with young people from the last edition of this teenage magazine series. Health, life skills and personal relationships are the main themes (see review).

WORLD STUDIES
(Friday, 10.48 ITV)
A new series exploring the role of women at home and in society. Focuses on accounts women give of their lives set in a wide social, economic and geographical context.

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Making waves

SCHOOL RADIO
Best of Wavelength
Thursday 18 and Friday 19 September
BBC Radio 4VHF, 11.00am.

Over the years *Wavelength*, a teenage magazine programme, has covered a variety of topics from religious cults to job hunting. This series of four programmes (two per transmission) offers selected excerpts re-packaged under the titles of health, the use of free time, jobs and training, and, finally, money. The programmes do not attempt to cover every aspect of every issue but to act as a stimulus to discussion.

"Health" looks at a variety of topics: smoking (someone's mum grumbles that it makes the curtains dirty, someone else is more concerned with its effects on kissing); heroin ("suppliers want you to believe you are hooked... Big business that's all we are to them") and glue sniffing.

Other more positive topics include exercise and diet; one young trainer enjoys removing his tee-shirt, to admiring glances, on a summer's day. Not everyone shares his passion though, for a healthy life. Exercises cream cake devotee. The final topic in the health programme is contraception, and young people, and others, express their views. Discussion of the moral issues we are told is best left to the classroom.

"Freetime" introduces a range of unconnected teenage interests: computers; working in radio (perhaps a slightly idiosyncratic choice though certainly a lively example of what young people can do, given the opportunity); sports; "self-presentation"; youth politics and animal rights. "Politics" turns out to be the young

Conservatives' disco marriage market and "sport" a sort of fighting/wrestling - to boost female confidence. What any self-confident female might say to the boy who believed that his girlfriend's legs were for his eyes only, is left for classroom discussion.

"Jobs and Training" too has its humorous moments. "It's exciting, it's different!" declares one female trainee. Has she a placement in the pop industry? Perhaps she's working in radio? No, she's with the armed forces. Marching at the double "is hard work with big boots on... It's a great laugh!" Not only this but off the Youth Training Scheme courses come out of the programme rather well, as does a Technical and Vocational Education Initiative course which includes child care for boys. Indeed, sex stereotyping takes quite a bashing throughout the whole series.

Other topics include the Department of Trade and Industry's mini-enterprise scheme, training at a racing stable, in this case a free course funded by the racing industry, and how-to-cope-with-an-interview. If you are nervous, "think of the interviewer in his underwear," we are told.

The final programme takes a look at financial affairs. It provides discussion material on budgeting and warns of "cheque book fever". On the other side of the cash till it looks at YTS in banks and building societies, part-time work, such as Saturday jobs. Helpfully, the regulations covering young workers are given.

Least all this talk of money should make teenagers top avaricious, the producer has included an interesting segment on fund-raising, featuring a Scottish school stimulated by a TV programme to support and fundraise for

colony. Their fund raising started with beetle drives and moved on to a sponsored "beard shave". They must be a hairy lot up there.

The Best of Wavelength provides a useful range of resource materials for teachers concerned with general studies, life skills, personal and social education and health topics.

Jean Sargeant

Craft, Design & Technology

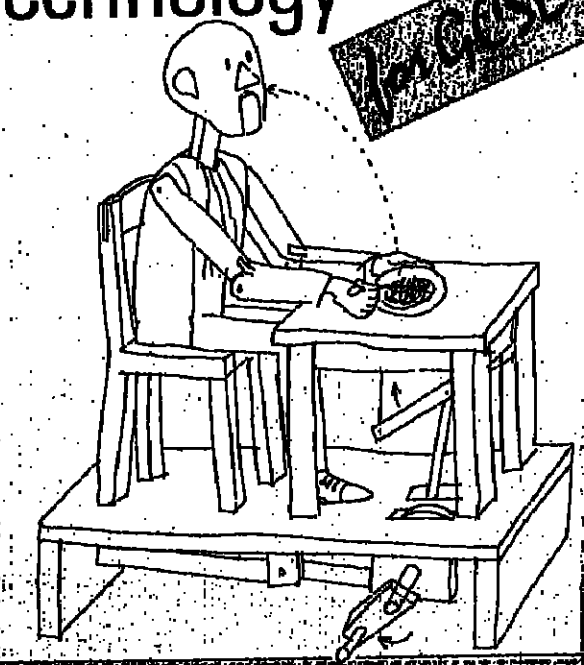
Thursday 10.45-11.00
beginning on the 18th September 1986
Ten new programmes for GCSE, made entirely on location, focussing on mechanisms, materials, modelling and microelectronics.

Mondays 10.28-10.43
beginning 15th September 1986
Another chance to see ten programmes exploring product design and presentation techniques.

The series is supported by a teachers' booklet, price £1.90, and a pupils' textbook, *Introducing Craft, Design & Technology* (Thames/Hutchinson) price £3.75.

For further information, contact the Education Office, Thames Television PLC, 140 Tottenham Court Road, London W1P 0LL or the Education Office at your local ITV Company.

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SCHOOL
Headship
Suitably qualified and experienced teacher, returnable to the Head Teacher by 1st January 1987. Salary £10,000 p.a. plus benefits. Apply to the Head Teacher, County Hall, Northcliffe Drive, Scarborough, YO1 1AA. (15498)

BERKSHIRE
EDUCATION AUTHORITY
Headship
Suitably qualified and experienced teacher, returnable to the Head Teacher by 1st January 1987. Salary £10,000 p.a. plus benefits. Apply to the Head Teacher, County Hall, Northcliffe Drive, Scarborough, YO1 1AA. (15498)

Education 96
Head Teacher 96
Qualified teachers are required at the following schools. Vacant now, to be filled as soon as possible.
Group 6
MANSFIELD CUMBERLANDS MIDDLE SCHOOL
Township Drive, Mansfield, Notts, NG19 6JN.
Roll: 407
The vacancy is created by the retirement of the previous Head Teacher.
Group 6
BEESTON JOHN CLIFFORD PRIMARY AND NURSERY SCHOOL
Nether Street, Beeston, Notts, NG9 2AT.
Roll: 323 + 40 place nursery.
The vacancy is created by the resignation of the previous Head Teacher.
Application forms and further details for the above posts may be obtained by forwarding a stamped addressed foolscap envelope to the Director of Education at County Hall, Closing date: 28 September. Please quote ref. 528.
An Equal Opportunity Employer.

AVON COUNTY
COUNCIL
Headship
Suitably qualified and experienced teacher, returnable to the Head Teacher by 1st January 1987. Salary £10,000 p.a. plus benefits. Apply to the Head Teacher, County Hall, Northcliffe Drive, Scarborough, YO1 1AA. (15498)

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BERKSHIRE
BURGHFIELD ST. MARY'S
SCHOOL
Headship
Suitably qualified and experienced teacher, returnable to the Head Teacher by 1st January 1987. Salary £10,000 p.a. plus benefits. Apply to the Head Teacher, County Hall, Northcliffe Drive, Scarborough, YO1 1AA. (15498)

BERKSHIRE
EDUCATION AUTHORITY
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EDUCATION DEPARTMENT
NORTH KENT AREA
APPOINTMENT OF

Headteachers

A) WINSTON COUNTY JUNIOR SCHOOL, CHURCHILL AVENUE, CHATHAM

Following the appointment of the present Headteacher to another school the Authority is seeking a suitable replacement for this Group 5 Junior School (age range 7-11) which is situated in the South Chatham district of the Medway Towns.

B) ST. MATTHEW'S C.E. INFANT SCHOOL (CONTROLLED), BORSTAL ROAD, ROCHESTER.

Following the retirement of the present Headteacher the Authority is seeking to make an appointment for this Group 3 Infant School (age range 5-7), which is situated approximately two miles from the centre of Rochester.

This is a re-advertisement and previous applicants will automatically be considered.

Further details available from the Area Education Officer (Ref: P), Port Pitt House, New Road, Rochester, Kent, to whom completed applications should be returned by the closing date of 3rd October, 1986 (please enclose s.a.e.) (00929)

KENT
COUNTY COUNCIL

Head Teacher

Qualified teachers are required at the following schools. Vacant now, to be filled as soon as possible.
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Roll: 407
The vacancy is created by the retirement of the previous Head Teacher.
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An Equal Opportunity Employer.

Nottinghamshire
County Council
County Hall - West Bridgford
Nottingham NG2 7QP

HEADTEACHERS

1) Required January, 1987.
Applications are invited for the following Headships:-
Frobisher County Primary School (Group 4), Frobisher Drive, Jaywick, Clacton-on-Sea.
Relocation allowances payable in appropriate cases.
Please send foolscap s.a.e. for form and details to County Education Officer, P.O. Box 47, Threadneedle House, Market Road, Chelmsford, Essex, CM1 1LD. Closing date: 28th September, 1986.

St. Francis R.C. (AIDED) Primary School, Gilchrist Way, Braintree, CM7 7SY.

Applications are invited from experienced teachers who are practising Catholics with a strong personality, drive and enthusiasm to promote a happy, caring, efficient and Catholic community school.
Application forms from Area Education Office, Cross-moat House, Station Approach, Braintree, CM7 8QA, returnable by 28th September, 1986 (foolscap s.a.e. please).

ESSEX
County Council

PRIMARY HEADSHIPS

BERKSHIRE
BISHOPSTON C.E. CONTROLLED PRIMARY SCHOOL
Headship
Suitably qualified and experienced teacher, returnable to the Head Teacher by 1st January 1987. Salary £10,000 p.a. plus benefits. Apply to the Head Teacher, County Hall, Northcliffe Drive, Scarborough, YO1 1AA. (15498)

BUCKINGHAMSHIRE
EQUIL OPPORTUNITY EMPLOYER
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Wiltshire

Primary Education
HEADTEACHER POSTS
WEST ASHTON C.E. AIDED PRIMARY SCHOOL, Bratton Road, West Ashton, Trowbridge, BA14 6AZ.
Group 2
Required from January, 1987 following the retirement of Mrs. J. M. Stacey. This is a village school in a pleasant surroundings 3 miles from Trowbridge. The Governors seek a well experienced, committed Christian teacher who wishes to develop community participation.
Ref. ST/7/SCD

ALL CANNINGS C.E. (CONTROLLED) SCHOOL, All Cannings, Deves, BN10 3PB

Group 1
Required from January 1987, owing to the appointment of Mr. N. L. Ruck to another post in the County. The Governors seek a well experienced teacher who will continue to lead and develop the School as a caring, forward-looking community. All Cannings is a pleasant village 4 miles to the east of Deves.
Ref. ST/7/PMB

CORHAM LYPIATT PRIMARY SCHOOL, 23MF Hostel, Lyplatt Road, Corham, BN13 9TU

Group 1
Required from January 1987 owing to the appointment of Mr. C. E. Holman to another post in the County. Set in an Army Base, the School serves as transit hostel for Service families. There is high turnover of children, many having insecure backgrounds. The Governors seek, therefore, an experienced teacher who will be able to cope with frequent or rapid change. The Head Teacher must also be sensitive to the needs of parents and children who are experiencing great upheaval in their lives.
Ref. ST/7/SCD

LIDEN JUNIOR SCHOOL, Liden Drive, Swindon, SN3 8EX.

Group 6
Required from January, 1987, following the appointment of the present Headteacher to another school in the County. The school serves a recently built residential area on the south eastern edge of Swindon. It is housed in a modern building and some temporary accommodation. Applications are invited from experienced, enthusiastic teachers with a commitment to good modern primary school practice and the capacity to continue curriculum development.
Previous applicants will remain under consideration unless they indicate they are no longer candidates for the post.
Application forms and further details (S.A.E. please) available from the Chief Education Officer (ref. FJK), Sandford House, Sandford Street, Swindon, SN1 1QH, returnable no later than the 24th September, 1986.

DEPUTY HEADTEACHER POSTS, CLARENDON COUNTY JUNIOR SCHOOL, Tidworth, Hampshire SP9 7QD.

Group 5
Required for January 1987. Applications are invited from enthusiastic and experienced teachers with proven leadership qualities to play a leading role in a challenging staff school. Some specific curriculum expertise is required together with the ability to influence curriculum developments and evaluation. A special interest in Science/Maths/CDT could be an advantage. It is anticipated that applicants will aspire to further promotion and will therefore be anxious to make the fullest contribution to the work of the School.
Application form and further details from and returnable to the Headmaster by the 26th September 1986.

SOUTHWICK C.E. PRIMARY SCHOOL, Hollis Way, Southwick, Trowbridge, BA14 9QF.

Group 4
Required from January 1987, at this Co-operative Unit, Modern, Primary School. Applicants should be capable, lively classroom teachers with proven leadership skills in at least one major curriculum area.
Details of the post and applications forms (S.A.E. please) are available from and returnable to the Headmaster by Friday, 19th September.

COLENE C.E. CONTROLLED PRIMARY SCHOOL, Quarry Lane, Colerne, Wilt.

Group 4
Required from January, 1987, to teach top infants and lower junior age, in a school that serves a rural community and has a large Services element. An interest in Art and Display is preferred.
Application forms available from and returnable to the Clerk to the Governors, Colerne C.E. Controlled Primary School, (S.A.E. please) by the 26th September.

STEEPLE ASHTON ST. MARY'S C.E. AIDED SCHOOL, Nr. Trowbridge, Wilt.

Group 1
Required from 1.1.87, to teach infants. Children aged 5-7.
Application form and further details (S.A.E. please) from and returnable to the Head Teacher by the 26th September, 1986.

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Application form and further details from and returnable to the Headmaster by the 26th September 1986.

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Application forms available from and returnable to the Clerk to the Governors, Colerne C.E. Controlled Primary School, (S.A.E. please) by the 26th September.

STEEPLE ASHTON ST. MARY'S C.E. AIDED SCHOOL, Nr. Trowbridge, Wilt.

Group 1
Required from 1.1.87, to teach infants. Children aged 5-7.
Application form and further details (S.A.E. please) from and returnable to the Head Teacher by the 26th September, 1986.

SURREY
COUNTY COUNCIL

* FRINGE AREA LONDON ALLOWANCE £282 p.a. throughout the County.
* Temporary housing may be available.
* Generous relocation expenses in approved cases.

HEADSHIP

CLANDON C of E (VOLUNTARY AIDED) FIRST SCHOOL, The Street, West Clandon, Guildford, Surrey, GU4 7ST.

(Estimated NOR Jan 87)
HEADTEACHER required for January 1987 or as soon as possible thereafter for this Group 2 school for pupils aged 5-8. Commensurate member of the Church of England preferred. Salary scale £11,438 - £12,875 pa.
Application form and details from SW area Education Officer, 144b, North Street, Guildford, Surrey GU1 4AF (S.A.E. please). Closing Date: 26 September, 1986. (00927)

CHRIST THE KING R.C. AIDED PRIMARY SCHOOL, Earls Court Road, Amesbury, SP4 7DX

Group 4
Required from January 1987, an experienced and adaptable class teacher with sound knowledge of modern primary practice, practising Catholic preferred.
Application form and further details (S.A.E. please), from and returnable to the Head Teacher, by 3rd October, 1986.

ST. JOHN'S C.E. PRIMARY SCHOOL, Boreham Road, Warminster, BA12 9JY

Group 3
Deputy Head required from January 1987 to work with Junior children to help lead curriculum development throughout the school. An interest in music desirable but not essential.
Application form and further details (S.A.E. please), from and returnable to the Headmaster by 3rd October, 1986.

Scale 2 Posts, CHRIST CHURCH C.E. CONTROLLED PRIMARY SCHOOL, Berrifield Road, Bradford on Avon BA15 1ST

Group 6
Required from 1st January, 1987 or as soon as possible thereafter. The ability to lead curriculum development in one or more of the following areas is required: Mathematics, Science/Technology, Music or Games (including Swimming). A commitment to practically based, child-centred teaching methods is essential.
Application forms and further details available from and returnable to the Head Teacher by September 26th. Previous applicants will be re-considered and need not re-apply.

RUSKIN JUNIOR SCHOOL, Wordworth Drive, Upper Stratton, SWINDON, SN2 6NG

Head Teacher Mr. G.M. Stephens
RE-ADVERTISEMENT
Estimated N.O.R. - January 1987 - 332.
Required January 1987, an experienced, enthusiastic Scale 2 teacher to either assume responsibility for the acquisition, storage and distribution of resources or to help establish and implement a school policy with regard to art, craft and display.
ALSO
Required from January 1987, an experienced, enthusiastic Scale 2 teacher, to organise and develop the mathematics programme throughout the school.
Previous applicants will remain under consideration, and need not re-apply.
Application forms and further details are available from the Head Teacher at the school. Closing date 26th September, 1986.

HIGHBURY FIRST COUNTY PRIMARY SCHOOL, Highbury Avenue, Salisbury SP2 7EY

Group 4
Applications are invited from experienced and enthusiastic teachers who will be responsible for the review and development of the Mathematics Curriculum throughout the school. The successful applicant will be based in a middle infant class.
Application form and further details (S.A.E. please) from and returnable to the Headmistress by the 1st October.

Scale 1 Posts, SALISBURY, ST. MARK'S CONTROLLED JUNIOR SCHOOL, Somerset Road, Salisbury, SP1 3BL

Group 5
Junior Teacher required from January 1987. An interest in one of four areas:-
Science
Maths
CDT or Computers
would be an advantage.
Application forms from and returnable to the school by 26th September.

COLENE C.E. CONTROLLED PRIMARY SCHOOL, Quarry Lane, Colerne, Wilt.

Group 4
Required from January, 1987, to teach top infants and lower junior age, in a school that serves a rural community and has a large Services element. An interest in Art and Display is preferred.
Application forms available from and returnable to the Clerk to the Governors, Colerne C.E. Controlled Primary School, (S.A.E. please) by the 26th September.

STEEPLE ASHTON ST. MARY'S C.E. AIDED SCHOOL, Nr. Trowbridge, Wilt.

Group 1
Required from 1.1.87, to teach infants. Children aged 5-7.
Application form and further details (S.A.E. please) from and returnable to the Head Teacher by the 26th September, 1986.

SUFFOLK

**FPOLE
UNTY COUNCIL
SCHOOL PRIMARY
FOOL**
Southold Road, Southwold
B.61P

1. 160 pupils
2. Joined from January 1957
3. 12 DEPUTY HEAD
4. TEACHER 12
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19. should be returned.

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RNET
NDON BOKOLU
DIHER (AMU) 1987
ALOROVE J.M.I. SCHOOL
Alorove Gardens, Finchley
204
First Class Teacher with re-
sponsibility for continued de-
velopment of staff through-
out the school in a post-
well-resourced area of the
London Schools System. In-
novative approaches and
provision allowances avail-
able from the school. Re-
sponsible for the school's
to the Head Teacher by

WICKINGHAMSHIRE
LOCAL OPPORTUNITY
PROVER
WICKHAMPTON CROFT COUNTY
WICKHAMPTON CROFT COUNTY
Wickhampton Road, Aylesbury,
Herts, HP19 3HS
Mr. J. L. Stevens
Tel. 0494 251111
Closed January 1987, an
excellent and suitably qual-
ified teacher to take full re-
sponsibility for language de-
velopment. Assistance with removal
of children is given if approved
by application form and further
interview.

SET
NODALE FIRST
SCHOOL
Nodale Road, Bradstone.
at BHA NEW
(see page)
from January 1987. En-
teric and experienced
School Teacher to co-
ordinate Mathematics
about the School (Scale
Application forms and
details)

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...ld be committed to a child-
...red approach to education.
...be able to provide a quality
...ning environment.
...and staff/consultation

The Secondary Science Curriculum Review



support materials; supporting in-service through local agencies; encouraging working groups looking at the implementation of the new curriculum; looking at the implications for sixth-form courses, further and higher education, and employment; and seeking to enhance the currency of a balanced science for all in the community.

It is important that we do not miss or squander the opportunities that exist at this time to make these changes in the secondary science curriculum in such a way that they are realized in

- ★ **COMPREHENSIVE** – covers the full GCSE examining group
- ★ **PRACTICAL** – 12 practical investigations
- ★ **MODERN** – e.g. radioactivity

Moles
FEATURES —
SELF-ASSESSMENT — in each
WORKED EXAMPLES — for practical
ready progression
ALL ANSWERS — in a final unit
HUMOUR — for all abilities

★ **SOCIAL BIOLOGY**
genetic engineering

★ THE HUMAN EFFECT ON THE ENVIRONMENT — due to over-grazing and

★ THE LIVING ENVIRONMENT

☐ GCSE (About £6.95)
☐ A-level Guide for GCSE Chemistry (£1.95)
☐ A-level Guide for GCSE Chemistry (£4.95)

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Dock House, The Waterfront, Cape Town 8001, South Africa
0521-875823 (hardback) 0521-875824 (paperback)

Radio poll on topical issues – views from 15–19-year-olds

They made up their minds

LAMBROS ATTESHILIS

The BBC School series *Make Up Your Mind* mounted a poll among its listeners during the summer term. The series was intended to stimulate thinking about ethical and moral problems created by topical developments in science. The audience were asked to respond to a series of questions on topics ranging from Food Additives to Nuclear Waste. The questions were available through the broadcast notes, Times Network for Schools and Prestel's School Link service. The students were asked to discuss the issues before casting their votes.

The problems with this kind of poll

are of course well known to statisticians. To begin with, the sample is not representative of the 15–19 age group as it consists of those listeners to the series who decided to respond. There were other more basic problems too, as is shown by the response to programme two. As Sir Robin Day often remarks during *Question Time*, "it doesn't mean anything but it's interesting"; and this applies not just to the results, but the nature of the response itself. Any interpretation of these results, is left to the reader to judge. This is how approximately 500 students voted after the first programme on Food Additives transmitted on Radio 4 VHF/FM on May 1, 1986.

PROGRAMME 1 Food additives: Are they harmful?			
	YES	NO	UNDECIDED
1 Do you think that we eat too many food additives?	86.8%	6.8%	8.4%
2 Do you think that it is desirable to do away with many additives?	70.8%	12.1%	17.3%
3 Would you be willing to pay more for "additive free" food?	63.0%	36.3%	10.7%
4 Do you think there is sufficient evidence to show that some food additives are harmful?	62.2%	23.2%	14.6%
5 Do you think that food additives are used to "dress up" poor quality food?	76.8%	10.8%	13.6%

The sample size for the next programme on Animal Experimentation jumped to something like 2,000, but the majority of these voters appeared to be attempting to rig the poll. Compare the believable results on the left (which are minus the dubious entries) to the entry on the right, sent by a technical college through Prestel.

We received many such "dubious" entries through Prestel; they showed signs of being sent in by isolated individuals who had dreamt up the numbers. It was interesting that so many voters appeared to think that a poll of this type was worth rigging.

PROGRAMME 2 Animal Experimentation: Too many victims?			
	YES	NO	UNDECIDED
1a If a cure for a major illness such as cancer depends on animal suffering, can we justify it?	72.2%	13.4%	14.4%
b Do you think that experimenting on animals is acceptable if they do not suffer?	58.7%	24.6%	15.7%
2 Do you think the cosmetics industry should be barred from experimenting on animals?	84.0%	6.1%	9.8%
3 Do you think that far too many animals are used for research in Great Britain?	76.4%	4.9%	18.7%
4 Do you think that much stricter controls by law are required on the use of animals in experiments?	83.0%	3.6%	13.5%
5 Do you think that the various animal liberation groups are justified in releasing animals from laboratories in order to bring the matter to public attention?	30.4%	52.8%	16.8%

The responses to programmes 3, 4, 5 and 6 are fairly predictable.

PROGRAMME 3 Acid rain: Act now or wait for scientific evidence?

	YES	NO	UNDECIDED
1 Do you think that Britain is being selfish by not agreeing to reduce sulphur dioxide emissions by 30% like other Western countries?	78.3%	15.7%	6.0%
2 Should we wait for more scientific proof of the causes and effects of Acid Rain before we take any further action?	18.7%	74.4%	6.8%
3 Should society be prepared to pay for the costs of strict pollution control in order to protect the environment?	77.2%	21.1%	1.7%
4 Do you think that Britain makes a substantial contribution to fish deaths and tree damage in Scandinavia via Acid Rain?	48.8%	18.7%	31.5%
5 Do you think Acid Rain is a problem in Britain?	48.7%	27.7%	23.6%

PROGRAMME 4 Star Wars: (The Strategic Defence Initiative): An offensive or a purely defensive system?

	YES	NO	UNDECIDED
1 Do you think SDI is being developed as a purely defensive system?	27.7%	68.7%	6.8%
2 Do you think the world could be safer from the nuclear threat if both superpowers possessed a working SDI system?	26.7%	58.6%	14.8%
3 If SDI removed the threat of nuclear war, do you think a conventional war between the superpowers would then become more likely?	37.2%	41.6%	21.2%
4 If both superpowers possessed a working SDI system then intercontinental Ballistic Missiles could become virtually obsolete. Would Europe then become a more likely battleground, since shorter range missiles would not effectively come under the SDI umbrella?	61.0%	14.8%	24.6%
5 Do you think Star Wars will become a reality in the next 50 years?	57.4%	28.2%	14.4%

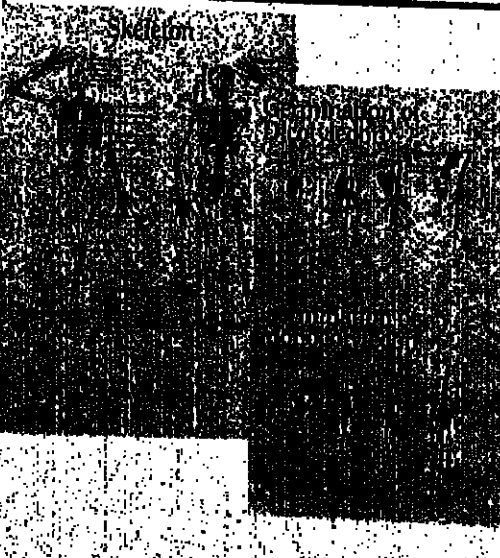
PROGRAMME 5 AIDS: How can we limit the spread of AIDS?

	YES	NO	UNDECIDED
1 If a student in your school or college had at some time been infected by the AIDS virus would you avoid that person?	44.8%	34.8%	20.7%
2 Do you think that more money would be spent on AIDS research if the disease did not mainly affect homosexuals men?	81.0%	12.1%	6.8%
3 Given that the current knowledge on AIDS is limited, do you think that there is a convincing explanation of how the disease is transmitted?	29.1%	51.9%	19.0%
4 Do you think AIDS could develop into a serious epidemic threatening the whole of society?	86.9%	18.0%	14.1%
5 Do you think that screening high risk groups would help to limit the spread of the disease?	81.5%	12.6%	5.8%

PROGRAMME 6 Nuclear waste: What shall we do with it?

	YES	NO	UNDECIDED
1 Should we stop the nuclear power programme until we have a satisfactory method for the disposal of nuclear waste?	46.0%	34.9%	20.1%
2 Should we keep low and intermediate level nuclear waste in monitored stores on land rather than dumping it?	61.8%	19.2%	18.2%
3 Would you find a nuclear waste site more acceptable near where you live if your community was compensated in some way – for example, by having new sports facilities provided by the nuclear industry, as sometimes happens in France?	12.4%	41.1%	46.5%
4 Do you think that the problems of nuclear waste have been exaggerated by the media?	31.2%	36.0%	32.8%
5 Do you think the economic justification for reprocessing spent nuclear fuel (money earned from abroad) has overridden other considerations eg. environmental safety and the existing over-supply of uranium.	66.0%	15.6%	18.5%

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Did the programmes help students to make up their minds? Perhaps it would have been better to ask them to vote before and after the programmes. Or were the questions too loaded? We shall be thinking about this before next year's series but if you have any suggestions for next year please send them to BBC Education, *Make Up Your Mind*, 1 Portland Place, London W1A 1AA.

Lambros Atteshilis is a producer with BBC School Radio.



The young naturalist's best work is always done out of doors, the two best areas of work often being the sea-shore or the pond. As a pond is probably more easily available to most than the sea-shore, this excellent book is a valuable addition to any young naturalist's equipment. Having given the warning that no two ponds are alike, the pond, defined as "a small shallow body of fresh water", is discussed as a habitat before the plants and animals are introduced in such a manner that any young naturalist can easily identify them. Identification is made easy by the beautiful photographs taken by Oxford Scientific Films: supporting an easily read, informative text.

Dipping

The Pond, By Gerald Thompson, Jennifer Coldrey and George Barnard. Collins £9.95. 0 00 219287 X.

Lift off

Launch Pad, the new interactive technology gallery at the Science Museum, received its first school visitors this week. The youngsters and the teachers were guided into the brightly lit gallery by the team of enthusiastic helpers who explained that every exhibit was to be touched, played with, even climbed on. Not a glass case or sight, the children were faced with vast carpeted space full of the colorful frameworks of metal scaffolding that supports the exhibits. And some of the exhibits are big enough to fit a child.

The children took a few minutes to grasp this new museum freedom of "hands-on" opportunity, and the helpers had to reassure the teachers within reason they really did mean just that. Then the action started as the exhibits challenged the visitors and were answered back in a variety of ways – the very essence of education. There are some buttons and handles, of course, but they are open and chunky, computer standard keyboards are replaced by individually designed pads that speed up the action. Some exhibits are designed for co-operation: the children work together in the Egg Store because it takes the energy of a group to make the turbine operate. In the Grain Pit the belts, buckets and augers must be kept moving, so the self-appointed young foreman will ensure that no one is allowed to slack.

The aim of Launch Pad is to let youngsters feel at home with the technology that they will live with in the middle of the 21st century. Perhaps no more than a small number of our young visitors will make their career in technology, but they all need to grasp its opportunities, promises, and limitations.

Primary schools in particular will find that Launch Pad gives the chance to set young minds working, to take new ideas back to school for discussion and projects, to enrich their classroom in science and technology. For it is the schools that will boost the "launched" children into their technological orbits, and teachers are an essential component of the Launch Pad experience, carrying the impact of Launch Pad ahead after their class visit.

Launch Pad does not work if it is overcrowded, so numbers are limited at all times. It is essential to book your school visit in advance. The gallery is always open to the public and you may come yourself and "taste" beforehand – or you can come to a teachers' course in October.

Interested teachers should write for details of Launch Pad (and the booking system) to the Education Service at the Science Museum, Exhibition Road, London SW7. Tel: 01-589 3434.

MICHAEL WILLIAMS

Principles and problems

ANGELA PAWLYN and TERRY ALLSOP

At present most Oxfordshire secondary schools provide a familiar fourth and fifth year curriculum giving a choice of biology, chemistry and physics alongside a modular course for less able pupils. It appears that the proportions of pupils doing one, two or three sciences correspond closely to the national figures reported by Tall ("Changes in Science Education: *School Science Review*, June 1985). While several schools have implemented balanced science courses and more are likely to do so shortly, the science education of many pupils is presently unbalanced as they do not study one or more of the major areas of science. The minority studying three science subjects finds difficulty in achieving balance in other parts of the curriculum.

This article reports work done during 1985/6 with Oxfordshire teachers. The recommendations of the DES policy statement *Science 5–16* were used as the basis for discussion with heads of science and members of their departments in about one-third of the county's secondary schools. In particular, teachers were asked for their opinions regarding the principle of balanced science and the problems they would expect to meet in implementation.

Balance of content is only one element of the arguments presented in *Science 5–16* and in the ASE's policy statement *Education through Science*. Other dimensions include:

— a greater emphasis on the development of skills

— a greater emphasis on technological applications and social implications.

However, due to the local influence of the OCEA (Oxford Certificate of Educational Achievement) science criteria in encouraging process-based

learning, and the expectation that GCSE will bring about important related changes, balance of content has been a recurring theme throughout the year's discussions.

In a very difficult year for schools due to union action and the imminent introduction of GCSE, the willingness of teachers to give up time to discuss balanced science shows that recent reports have had considerable impact, with balanced science being seen as an important issue.

The views of teachers

1 A majority of teachers are concerned about the effects of the present option systems and agree that it would be desirable for pupils to study aspects of the three main sciences. Many of them also have concerns about the best interests of their pupils being met by the introduction of balanced science.

2 Two-thirds of the teachers are opposed to the recommendation that pupils should spend no more than 20 per cent of total curriculum time on science as they believe that this is too restrictive for more able pupils.

However, a larger majority think that courses can be "pruned" considerably without reducing intellectual demands. The implication that some teachers are making contradictory statements may be explained by concern about the time required for incorporating more investigational work and technological applications/social implications.

3 Comments such as "I am particularly worried about the number of girls doing just biology" were common. A

complementary reaction was that "forcing them to do physics" would be counter-productive. GCSE's greater emphasis on socially concerned science should lessen this problem as the dehumanized nature of many physical science courses appears more off-putting to girls than boys.

4 Acceptability to parents and employers is frequently used negatively with respect to introducing balanced science courses, although this is not an issue for those schools who have already made the change. In one of these schools, the reason for adopting a co-ordinated science approach was that "parents would be reassured that pupils would still be taught by specialists". Falling rolls are causing many schools in the county to compete for pupils and threats of closures; mergers or loss of sixth forms to not create a climate for making curricular changes which might be unpopular with parents.

5 Lack of acceptability to employers has been an important reason for phasing out SCISP (Schools Councils Integrated Science Project) in two local schools. Several teachers recognized that the support of the careers service and advisers had solved the problem in some areas and were confident that the proposed local initiative to support the introduction of the full grade Oxfordshire Modular Science Course would make balanced science acceptable locally. The modular course was also welcomed by some "because the variety of courses is confusing". Others fear that the modular course will not meet their requirements and are suspicious that adopting schools would be favoured with extra resources and INSET support. One optimistic head of science would welcome a county policy "arrived at by heads of science rather than one dictated by advisers". It is hard to see how, in this county, such a consensus could be reached.

Some favour the approach because they openly admit that it would cause little change in teaching commitment. Others are concerned that the approach would maintain artificial

Types of course

The introduction of co-ordinated courses elicits a polarized response.

continued



dictated by advisers". It is hard to see how, in this county, such a consensus could be reached.

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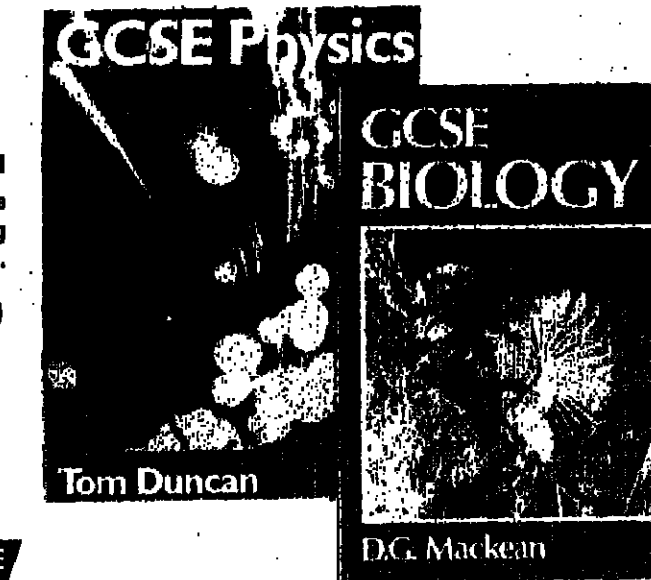
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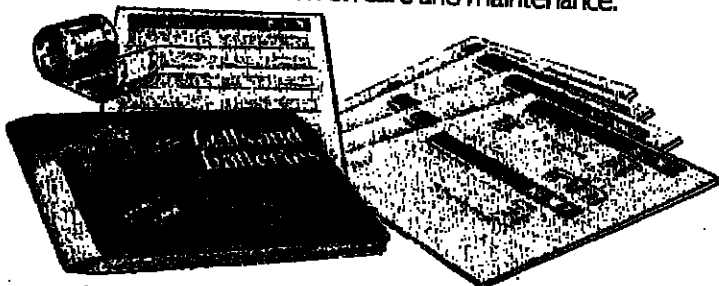
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MACMILLAN EDUCATION

Principles and problems continued

barriers, that co-ordination would be difficult in practice, and that the time spent with any given group of pupils would be reduced.

There is little enthusiasm among this group of teachers for integrated science courses, the chief worry being that teachers would have to teach all three sciences – an interesting view of how an integrated course might be constituted!

Modular science courses are welcomed because of the flexibility they provide to:

- offer both separate science and interdisciplinary modules
- allow choice of modules for pupils
- organize staffing appropriately according to individual strengths and weaknesses
- prevent pupils becoming categorized too early.

Difficulties are anticipated if pupils are given freedom of choice of modules. Some teachers still firmly associate modular courses with provision for less able pupils and find it difficult to envisage them catering for the needs of all.

Little interest was shown in biological science/physical science, partly because early in the year no appropriate draft GCSE syllabuses were available for inspection.

Managing the change

Staffing is likely to present serious problems. In several of the schools some teachers did not want to teach outside their specialism while others in each school had reservations about exchanging groups of pupils to continue to allow specialist teaching partly because "there are some pupils who would drift and not give their full potential". The majority of heads of science welcomed the freedom to exchange groups although, in meetings concerning GCSE, it was apparent that this would complicate the assessment of course work.

Whilst heads of science have a vital role in implementing balanced science courses, particularly in making decisions regarding choice of course and organization of staffing, in at least two of the schools in the county, whole curriculum policy was the driving force in producing the move. In the absence of overall change balanced science courses occupying 10 per cent or 20 per cent of curriculum time could be introduced without disturbance to the rest of the curriculum. The situation would be very different for a head of science making a case for a head of science for all against a background of the defence of wide choice in other areas of the curriculum.

A number of interim solutions have been floated in the discussions, two perhaps being worthy of mention:

- 1. Modular courses can be offered further up the ability range before making them available to all. This would have the advantage of pulling in more teachers to experience modular approaches, but there is a danger that it would leave balanced science courses with lower status.
- 2. As a first step balanced science could be introduced for pupils doing 10 per cent science whilst others would continue to opt for two of three separate subjects. This could be a useful device if the course chosen could also be used for 20 per cent science as it would allow a staged introduction for hesitant teachers.

National initiatives

The DES policy statement *Science 5-16*, along with new GCSE courses now being made public, has created unprecedented discussion and movement within a period of just over 12 months, at a time when action in schools might have had a severe dampening effect. In the responses of our teachers, we find broadly three kinds of response:

- a. a large group who are cautiously positive but clearly genuinely lack the confidence to take balanced science on board. It is on behalf of this group, wherein rests considerable goodwill, that we would press for a clear and vigorous national follow-up to the policy statement, designed to publicize the benefits of a balanced science course, so that local initiatives at i.e.s. level may grow in confidence and flourish.
- b. a group who are enthusiastic and ready to provide an appropriate and readily up-dated body of knowledge, understanding and skills both for those not intending to follow the subject beyond the 16th year, and for those who intend

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Pay more money and provide more resources if you can, certainly, but industry and the research institutions, also lamentably short of physicists, will always outbid you. Entice and retrain the retired and the redundant if you must, but the signs are that even as a short-term palliative that is not satisfactory.

The main action must be directed at the way the subject is taught. If the drying up of physics teaching, forecast by doom-mongers for the mid-1990s, is to be avoided, this need not entail wholesale revision of the curriculum but the approach does need to capture the imagination and demonstrate the relevance of scientific knowledge to problems encountered in everyday living. Properly planned it could provide sparking points to ignite interest right across the intelligence range.

The catholic approach is essential if the object is to generate an understanding of the elements of physics throughout society. Past failure to do this has meant the way ahead lies in many a good idea into the dry sands of incomprehension. Radar is a case in point; despite the urgency of war there were many months delay before the concept was accepted and allowed to bear fruit.

That it can be done is being demonstrated in a project led by Mr Chris Duffin of Northfields Upper School, Dunstable, who has been convinced for years that the way ahead lies in applied physics. He has secured the backing of the Bedfordshire education authority and the TVET unit of the Manpower Services Commission for development of an experimental syllabus which will reverse the usual teaching process by looking first at an industrial application, then working backwards to discover the physics.

He has prepared schemes for third and fourth years; others will follow. Examples are drawn from railway signalling systems, the effects of collision and wind resistance on motor cars, designs for flat television screens, coin-checking, vending machines and friction on artificial ski slopes.

These, among others, have been tried out in Bedfordshire schools. "So far the results have been very satisfactory right across the board," Chris Duffin told me, "even for the less able." He insists that in this way all can be given access to science. Since physics is rarely the only subject involved he claims the method can be used by single subject specialists and by those who prefer an integrated approach.

For his own part he is wary of proposing integrated science for everybody, "but you can work from an integrated core to give all access to each science," he said. In this way he reckons to break the hard boundaries which hedge in the principles of physics: "There would be no need, for example, to ensure that all electrical measurements come up in the 'electricity' section; there would not be one." The standpoint of his project team is aims which beguile: "To stimulate, sense of wonder, enjoyment, and joy; to provide an appropriate and readily up-dated body of knowledge, understanding and skills both for those not intending to follow the subject beyond the 16th year, and for those who intend

for a career and for the encouragement of girls.

That this must take into account the world beyond the laboratory is emphasized in aim 2, which reads: "To promote an awareness and understanding of the social, political, and environmental implications of physics" and, elsewhere: "To establish direct links with other subjects... To provide links, communication and mutual assistance between education, commerce and industry."

Last on the list, but by no means least in importance, comes "To stimulate the teachers," a point Chris Duffin underlined in conversation. "We must stimulate teachers. A lot of us are bored by what we are teaching," he pre-empted by bored pupils.

Another possibility, already happening informally in some schools short of physics specialists, is the development of a two-tier system which would give all a grounding in elementary physics. The few with a special interest and the ability to do it would opt for courses in higher physics run by physics specialists or science centres run by local education authorities or based on one of a group of neighbouring schools in much the same way as joint sixth forms.

Such a system could make good use of a limited supply of highly trained physics specialists and mean less low-powered, faster and cheaper re-training for teachers transferring from other subjects to teach at the introductory level.

It could also provide industry with opportunities to participate by sending their own people for a spell to stimulate application of theory in practical work aimed at production to meet needs observed by pupils. Since such centres would be few it should be possible to equip them well, backed with electronic links with distance learning systems. The difficulty here, as in the scheme proposed by Chris Duffin, lies in the choice of project, which would have to be carefully chosen to ensure breadth of grasp of principles.

Although it is obvious that the choice of higher physics would be limited to those with a strong interest, any charge of divisiveness could be avoided if it were possible to devise a modular approach which would allow youngsters to transfer if they wished at a stage later than their peers.

Talking to physics specialists around the country it is apparent that the unimaginative voices of the DES and others, though much the loudest at the moment, are but echoes of past panaceas offered with small success since the cycle of shortage first emerged with the Thompson Report of 1918.

More radical solutions are being worked at. There is a plan bubbling in a secret cauldron at Oxford, the recipe for which is to be revealed in October. The Secondary Science Curriculum Review is to publish a report around the year end which is expected to pillory the unadventurousness of physics teaching and produce some startling ideas of its own. The Association for Science Education, for long content to wring its hands and cry: "Something must be done", is setting up a working party to produce solutions which, it has at last recognized, are needed urgently. So much that the group has been instructed to meet frequently and report in October, October 1986, that is.

Well, the Secretary of State did ask for ideas and it looks as though he will get them. The solutions he adopts will reveal the strength of his own imagination and of his proclaimed conviction that "in science education lies the country's key to the future." If he can restore the magic we shall

EXTRA

Physics: the social implications



Examining the issues

MARK GIBSON

It should be noted that any direct reference to "cultural influences" has now disappeared, a significant omission that will be returned to later.

Among the assessment objectives we find the statement:

"Consideration of the interaction of physics with society is regarded as an essential element in any course in physics, and it is anticipated that complete syllabuses will include assessment objectives directly related to this aspect of Aim 2.2."

The examining groups, however, differ in their enthusiasm for the inclusion of content relating to Aim

demonstrate an understanding of the problems and hazards involved in nuclear power generation."

It then proceeds to state which hazards candidates ought to be aware of, essentially ones that can be contained. The approach here is no different to O level procedures. Nowhere is the whole nuclear power programme called into question. Its social and economic effects (for future generations as well as our own) do not get a mention. The result is a scientific problem which can be minimized and once these problems are contained then nuclear power is safe! (One could also ask if nuclear weapons should be

2.2. Overall, they have, in physics, included assessment objectives relating to Aim 2.2, but have not specified what content ought to be taught to achieve such objectives". This leaves teachers in an uninformed position.

The Northern Examining Association's (NEA) Physics includes Aim 2.2 from the National Criteria and has some references to obtaining this aim in the many assessment objectives:

"2.28 (candidates should be able to)

taught as a social/economic implication of physics.)

NEA also refer to "alternative" energy sources:

"6.5 recalls that the following renewable resources are available: (i) wind, wave, hydro-power, solar biomass (ii) tidal (iii) geothermal."

When one looks at the specimen papers, though, no such knowledge is being tested. This is a major criticism of the syllabuses. Nowhere are we, as teachers of physics, given examples of the type of assessment questions that are to be used in order to achieve these objectives. NEA do say "It is expected that teachers will introduce their own exemplar material on technological applications and social and economic interactions by choosing other relevant applications and interests as they arise naturally in class discussion and will not treat the examples specified as prescriptive." Whilst this may be good teaching technique it does not inform teachers about what type of questions may occur in an examination (assuming, that is, that the assessment objectives are to be assessed!).

The London and East Anglia Group (LEA) have produced better materials to show how they will assess their objective 4(d), "explaining some technological applications of physics and evaluating some of the social, economic and environmental implications." On the specimen paper we see, as a final section on nuclear physics, a mock planning inquiry for a proposed nuclear power station, with candidates being asked to put forward three advantages of the scheme proposed by the "Electricity Generating Board" and three disadvantages proposed by the "Lower Snodbury Residents Association". Elsewhere in the specimen paper one also finds detailed questions on solar heating.

This is very different from two other examining groups, the Southern (SEG) and the Midlands (MEG). Each have an assessment objective for the social implications of physics, but

continued

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Examining the issues...

continued

(although MEG have not, at the time of writing, produced any specimen papers) how it is to be examined. It is quite astounding that the Secondary Examinations Council is verifying such syllabuses when the assessment objectives appear not to be assessed!

When one looks at other sciences and their content from the same groups, one is left thinking that physics wishes to remain an aseptic form of knowledge, independent of any social influence and implications. The MEG chemistry, for instance, has a whole section in the content on the social, economic, environmental and technological applications of chemistry. This includes such topics as pollution, food supply and the use and abuse of chemicals, while the MEG General Science has a column running throughout the syllabus on social implications.

Cultural diversity

The General Criteria require the following of all subjects and syllabuses:

"Recognition of Cultural Diversity
In devising syllabuses and setting question papers examining groups should bear in mind the linguistic and cultural diversity of society. The value to all candidates of incorporating material which reflects this diversity should be recognized.

Avoidance of Bias

Every possible effort must be made to ensure that syllabuses and examinations are free from political, ethnic, gender and other forms of bias."

The idea that science is culture-bound is debatable, but nonetheless one can accept the National Criteria for Science when an aim of a course is to show that science does have cultural limitations; different cultures have developed different areas of science.

The Physics National Criteria do not recognize this, however, and physics syllabuses do not reflect the cultural diversity of the entrants to the examination. They concentrate on American/European developments of physics and applications, when stated, are to this culture's technology. There is no effort to show the knowledge of physics being used to solve any problems in the Third World.

There is also a difference between avoiding something and being unbiased. The avoidance of objection can result in the transmission of tacit acceptance; for example, not to teach the Nuclear Power Debate but only how a nuclear power station works implies support of the use of nuclear power. This becomes an even greater cause for concern when one thinks that the major political parties in this country are now taking different stances on the issue.

Studies have shown that girls particularly are "put-off" physics because of its lack of application to what they see as important. It could be argued that to not apply the Science-in-Society objective is, in part, creating a gender bias.

In conclusion, it appears that the physics examining groups, unlike those in other sciences, have not taken wholeheartedly to the idea of the inclusion of social, economic and technological implications of physics in syllabuses. There is little difference in the content of courses from the old O levels and CSEs in this respect. Ironically, the major difference in content is in the field of electronics. No area of knowledge has more social and economic implications, yet they are nowhere to be seen in any of the syllabuses.

It is hoped that as the examinations become more settled the inclusion of social, economic and technological applications, making up the 15 per cent of teaching time recommended, will occur. At the moment teachers, realistically, may only teach what is to be examined.

References

1. ASE "Alternatives for Science Education - a consultative document" (ASE, 1979)
2. J. Lewis (Ed) "Science in Society" (ASE) and J. Solomon (Ed) "Science in a Social Context" (SISCON) - 3 Sir Keith Joseph in *The TES* 20th May, 1983.
3. ASE "Science and Technology in Society" (SATIS) 1986.
4. The Welsh Group do not include an assessment objective of the social implications of physics.
5. Cf. General Criteria, paragraph 1.

Observation and recording



Chore or challenge

NICHOLAS SELLEY

Observation and its related activities, the recording of observations, are perhaps the most widely recognized and most actively pursued of all the science skills listed in the various documents which have appeared in recent years as aids to the primary teacher wishing to teach science by the "process approach".

The trouble with Observation is that everyone thinks that they know what it means - until they think it cannot simply mean seeing everything that is there to be seen (or, likewise, experienced by other senses). We do that all the time, and immediately reject most of the information as trivial, and observation involves the ability to select relevant information. But relevant to whom, and to what task? Too often it turns out that what the teacher (or other authority) means by "relevant" are those aspects which will turn out to be significant evidence for some important scientific theory, as yet unknown to the child. So how can we or she possibly "select" such observations? To him they are irrelevant.

This explains why so many children, given the task of "observing carefully" what happens when drops of tap water and rain water are heated on a glass slide, note the way the drops bubble and boil, but dismiss the chalky residue as "dirt on the glass".

A perusal of old school textbooks leads me to suppose that the elevation of Observation to the status of First Step in school science dates from the last century, when it was still thought that scientific discovery proceeds by the inductive method: that is, we observe and record, with an objective, unbiased and open mind, everything that there is to observe in some corner of the natural world (the action of magnets on metals, for instance); then, after diligent scrutiny (and given a touch of genius), the underlying theoretical pattern will become apparent. Then we just confirm this pattern by a couple of further experiments, and we are home and dry.

Of course, it is not like that at all. For a start, there cannot be any "pure unbiased observation", since (as Huxley and plenty of others) all observation is theory-laden. Observation is a purposeful activity, and

whether expected features are present or perhaps whether the features which are present were expected. Neither of these two ways of confirming or disproving assumptions is very exciting, though it may give a comforting prescience that all's well with the world. Only when our expectations are violated do we normally (ie outside science lessons) take much notice.

The important thing is that the "expectations", which play such a role in observation, are deductions from some theory about what the world is like - the observer's existing mental model. It is this which gives meaning to the term "relevant". And is violation of the expectations what brightens the observer's life - if he is still young and curious enough to enjoy the invigorating challenge of his own world-model.

Let us get back to the children and their "Observe and Record" task. Perhaps they have some leaves, lime or other plant material; or a collection of foreign coins of various sorts; or kitchen powders to shake with water. What might they "observe" if left alone? Some leaves are withered while others are fresh; some fruits are sweet while others are bitter; the coins are sorted by country or arranged in order of face value; and the powders can be seen to be lumpy, coarse or fine-grained, and some float in champagne when sprinkled on water. The whole exercise seems a little pointless, since most of the observations will be, to the teacher, trivial.

In order to avoid this unproductive outcome, many teachers provide worksheets which "guide the children's observations" with prompting questions and perhaps a Table of Results to fill in: serrated or smooth-edged? tarnished or shiny? soluble or insoluble? By such means the children are put in the role of laboratory assistants. They do not now choose what to observe, and are not called upon to decide whether a certain feature is "relevant" or not. (If it is asked for on the card it must be relevant!) There is some danger that the whole business will become a bore and/or a chore.

What can restore some interest and excitement to the operation of observing, without returning to the stimulus and dutiful noticing of everything that is observable? The answer is to give the activity a purpose - recognizable by

Chore or challenge

continued

and acceptable to the children. True observation is a search for meaning. Therefore the children must, before they start observing, have thought of some enquiry to which the observations will be relevant.

Perhaps preliminary inspection will play a part in generating ideas for investigation, but to my mind this is not "observation" (and certainly not worth recording) until the question or hypothesis has emerged. Just how much help the teacher should give children in choosing and formulating their investigation is a matter of judgement (some teachers can work in the Nuffield Junior Science manner, while others like to keep a much tighter rein); but this is immaterial to the point being argued. Observation and Recording are not universal skills, to be practised for their own sake, in the hope that they will come in useful one day. They are not context-free. Observation, and decision-making on what to record, are heavily dependent upon the child's existing knowledge, and will not transfer at all well from one area of investigation to another.

What will transfer is the child's attitude - favourable or unfavourable. If the experience leaves a feeling that observation is worthwhile as a way of trying to answer questions, it will show up as added willingness to make the effort next time. And if it becomes apparent that some (the more complicated) questions can only be tackled through hard thinking about the observations afterwards, this may generate a little more enthusiasm for the clear recording of the data.

When children see the need for recording, they will use all their skill to find a way of doing it. And they can learn from their mistakes. For instance, a group of 11-year-olds were using paper chromatography to show up the differences between four brands of black ball-point pen (as part of a "detective" game to catch the author of a "ransom demand"). The experiment worked well, except that the children found, too late, that they had failed to label the spots or keep a record of which pen was which. Next time, without reminding, they kept proper notes.

Teachers can contrive to make writing about the method and results seem to have some purpose; for example, one group can write instructions which are then actually used by another class, and later the written results are exchanged and compared. Any inadequacies in the records which come to light will be brought home to their authors immediately; and this will teach more about the importance of good recording techniques than any number of routine exercises on "writing-up". All this is tied up with the element of personal judgement that is inherent in all observation. If a child thinks that his observations are worth recording, communicating or even just remembering, then he must have recognized some value in them. It is this value which distinguishes true observation from the passing apprehension of some irrelevant datum. Perhaps we may define an observed fact as a datum to which some value has been attached. Data without value are just "noise".

It follows that any genuine act of observation must be for a purpose. In the days of Nature Study it was thought to be enough to look, learn and wonder, and I do not deny the aesthetic and emotional appeal of the natural world. But does this passive relationship lead to real observation? We should remember Charles Darwin's remark that for a fact to be of any importance it must count as for or against some hypothesis.

So why not re-act our primary science "observation" exercises into the new mode of collecting evidence which will help to answer a question? "Does the damage to leaves only occur after they have fallen?" "Are the cheaper coins made of lighter metal?" "Do all white cooking powders dissolve if you stir long enough?"

Investigations like this arise naturally in the Science 5-13 approach, but they do depend upon the pupils' inherent desire for knowledge - pure, intellectual - scientific knowledge, valued for its own sake and therefore able to act as a kind of reservoir which can give value to observations. Not all children retain this degree of interest

curiosity about the world, especially as they approach adolescence. For some, the challenge of a technological problem (ie inventing something which could be of practical use) may serve as an alternative incentive for making careful observations.

Teachers have rightly accepted the process approach in primary science; and even in secondary schools support for it may be growing, prompted by the work of the Assessment of Performance Unit, the anticipated requirements of the GCSE, and the DES Science 5-16: *A Statement of Policy*. It would be a pity if progress in this direction were hindered by the mistaken belief, reinforced in so many national documents and I.e.A. Science Guidelines, that Observation and Recording are general skills which can be taught (and assessed) in isolation, like handwriting or spelling. In my opinion, we must throw out the pseudo-Piagetian hierarchy which places Observation and Recording at a stage lower than Explaining and Hypothesis-testing, and recognize that only when these all come together in an exciting, urgent search for meaning can anyone, of whatever age, impress upon these activities the value which brings them to life.

Nicholas Selley is senior lecturer in science education in the Faculty of Education, Kingston Polytechnic, (Clayton Hill Campus).

EXTRA

Approaches to chemistry

Progress with Chemistry. By Brian Stewart.
Cassell Book 1 £4.95. 0 304 30994 X.
Book 2 £5.25. 0 304 31221.

These two books have been written for students following the GCSE syllabuses. In an attempt to accommodate pupils of different abilities the author has produced two integrated yet independent texts. *Book 1* should be sufficient to enable pupils to achieve lower levels in the GCSE. *Book 2* for high achievers.

Both books are divided into 48 short units, each containing text, experiments where appropriate, a short summary, extension work and revision questions. There are plenty of photographs and drawings in both colour and black and white that relieve the text and are interesting. At the end are examples of recent examination questions.

Book 1 is divided into two sections, the first called "Chemistry in the Laboratory". Chemistry teachers have different approaches to the teaching of their subject; I like to give pupils a practical but sound knowledge of the

elements in the Periodic Table as a picture into which individual facts about elements can be fitted. The author does not use this approach and describes six non-metal elements at some length. The periodic table and families of elements are given brief treatment. Metals are dispatched in 10 pages including the reactivity series. There is no mention in *Book 1* of organic chemistry, and the chemistry of carbon is described as follows: "It does not seem to be a very exciting element as far as chemical properties are concerned".

Section Two of *Book 1* is called "Chemistry in the World and You" and deals with raw materials, energy, pollution, medicine and drugs. I think it is sad that the last information unit in a Chemistry textbook should be a brief survey of drug abuse, such as pupils meet in many other lessons, with no real chemical information.

Book 2 is divided into three sections, the first of which deals with theoretical concepts. I did not find the explanation in this section very clear: with structure, followed by bonding, and very little on the role of electrons.

Section Two is on "Elements, Compounds and Chemical Change" and

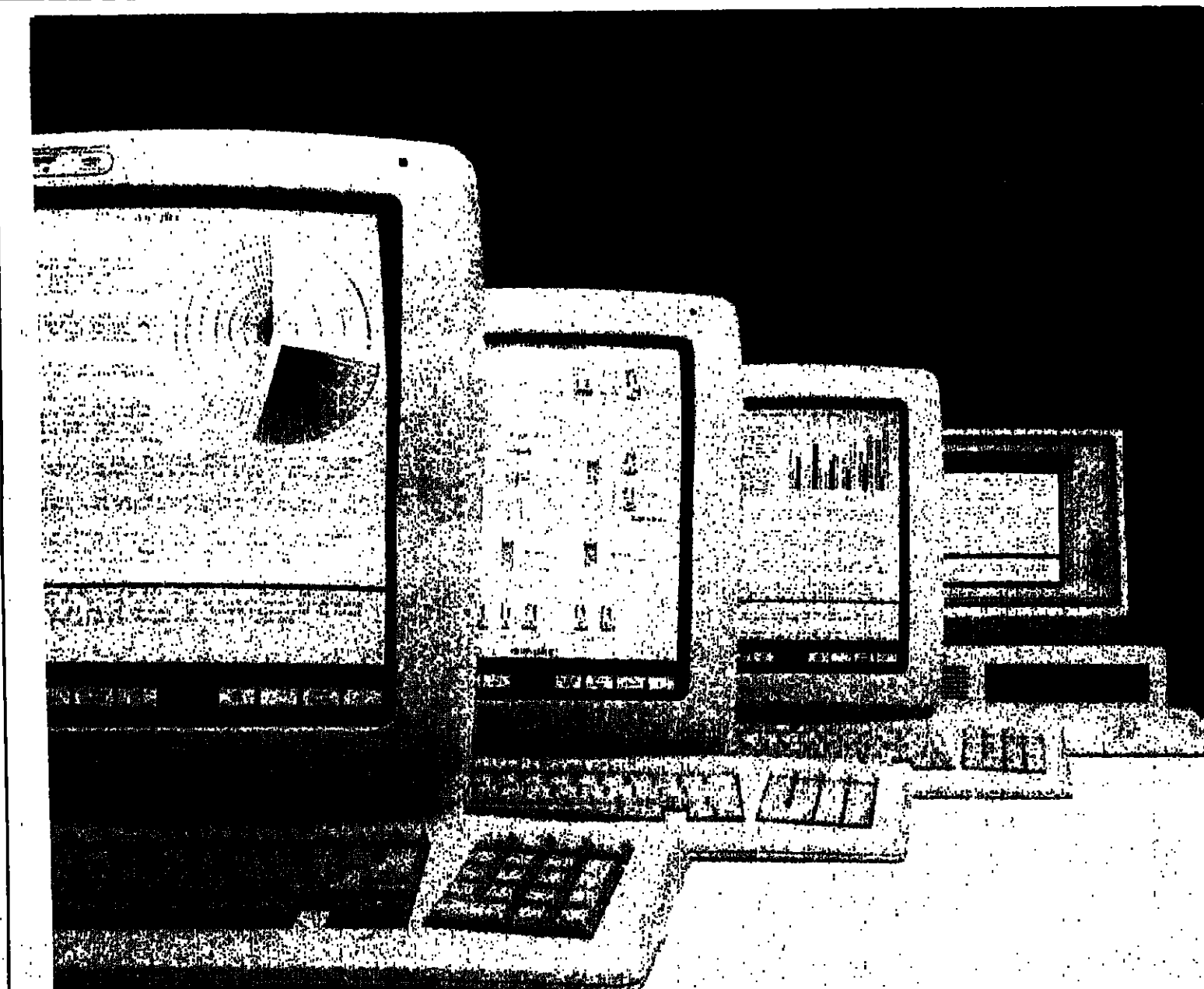
includes some inorganic chemistry based on periods and groups, some physical chemistry including calculations, organic chemistry covering alkanes, alkenes and ethanol only. *Book 2* ends with a useful section on "Chemistry in Industry".

I find two major problems with these books. First, I do not think the author has really brought out the most vital concepts in chemistry. All students of chemistry should have a notion of a pattern of elements, and why reactions occur rather than a miscellany of facts on individual elements. Students who only have *Book 1* will not emerge with these concepts and, in my view, they are not very clearly explained in *Book 2*.

A further problem arises in the use of the two books. If chemistry groups were settled then students could use *Book 1* and then progress to *Book 2* but in a mixed-ability class it would be very hard to use the two books simultaneously.

Writing textbooks for the new examination poses immense problems, especially in chemistry, that I do not feel these books have overcome.

LESLEY BULMAN



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TES 120

Primary experiments

A testing experience

Two incidents have taken place in our school in the last three months.

Incident number one. I was walking along a corridor and heard shouting. When I went to investigate I found four excited children. They were second year juniors and the theme of their year-group was "Space". As part of that theme their teachers had organized a variety of science experiments and I had happened on the one to do with propulsion.

You may well have organized a similar experiment yourself with a washing-up liquid container, a piece of plasticine, a ball-pen casing, a straw and something vaguely resembling a rocket attached to the straw. The plasticine holds the ball-pen casing into the neck of the container, the straw rocket is inserted into the casing, the container is squeezed and the rocket flies into the air.

That was the cause of the commotion. Simple excitement about the process of seeing whose rocket could travel the farthest. The children could hardly contain themselves, jumping up and down as their next launch made

their rocket travel further than last time or, occasionally, hooting with derision as someone's rocket failed to take off at all. In short, everyone was having a good time.

Until I appeared, that is. I don't think the good time stopped because I arrived as authority figure; it stopped simply because I tried to impose some scientific sense into it. I began to talk to the children about fair testing: to ask them to measure the distances each rocket travelled; to tabulate their results. Within two minutes these lively children had lost much of their natural enthusiasm; the negativity that came over the proceedings was so great that I abandoned my input, made my excuses and walked away. Within seconds the fun had begun again.

As I left them to it I was both pleased that they were excited and disappointed that real science was not much in evidence. It would, I thought, have been difficult to justify to any interested visitor what those children were doing at that precise moment.

MARTIN SKELTON

It took an after-school discussion with our teaching deputy to remind me that there was another point of view. Jackie Mitchell teaches middle infants and she quietly reminded me of the essential act of letting children explore new materials for themselves before attempting to use them in any structured directed way. It was easy to see at which stage our "scientists" were operating: they simply were not ready to conduct reasoned, reflective experimentation. They were, rightly, excited.

I then discussed this with Derek Seston, responsible for science in our school, and the other point of view was decided to use one of Derek's regular science workshops to try and explore some of the issues of experimenting with children. We booked a lunchtime session, talked about it a little more and I then left Jackie and Derek to organize it.

Incident number two. For better or worse, four members of staff were to act as guinea pigs, watched by their other colleagues. Entering Derek's classroom I found myself to be working with Ruth, Jean and Angela. In front of us were a kettle of hot water, four drink cans wrapped in different materials, thermometers, some pencils, paper and a card of instructions.

The questions and the problems flew thick and fast. "Why are we doing this experiment?" asked Jean. We were just told to get on with it. "Most of the thermometers don't work," pointed out Angela.

"How can I pour the water from the kettle into the cans?" I asked, spilling most of it over a desk top. "Try using a funnel" was the reply. Somehow I had forgotten about funnels: I picked one up and used it, shamefacedly, only to increase my own embarrassment by failing to comprehend its capacity in relation to the rate of flow. Quite clearly I needed considerable pre-experimental exploratory work with funnels.

The thermometer measures different temperatures at different heights inside the can," pointed out Ruth. "Where do we take the measurement to be accurate?"

The debate continued for some time; we became sillier, and without any pre-rehearsal at all we had managed to demonstrate to our colleagues our inability as adults to produce reasonable practice in an experiment most of us had been responsible for in our own classrooms a number of times. Whatever the experience did for our watching colleagues it certainly brought home a few lessons to us.

The most important being this. Most of us pay nodding agreement to the existence of science in the primary classroom, display some allegiance to the four (or perhaps five) content areas; and acknowledge the existence of significant science skills around which our science teaching must be based. We accept that many of those skills are concerned with notions of experimentation and we plan for our children sound experiments which link properly with the themes we are studying.

Yet all too often we forget to create the conditions under which good practical science can be realized by the children we teach. We rush them into controlled experimentation before they are ready; we ask them to take

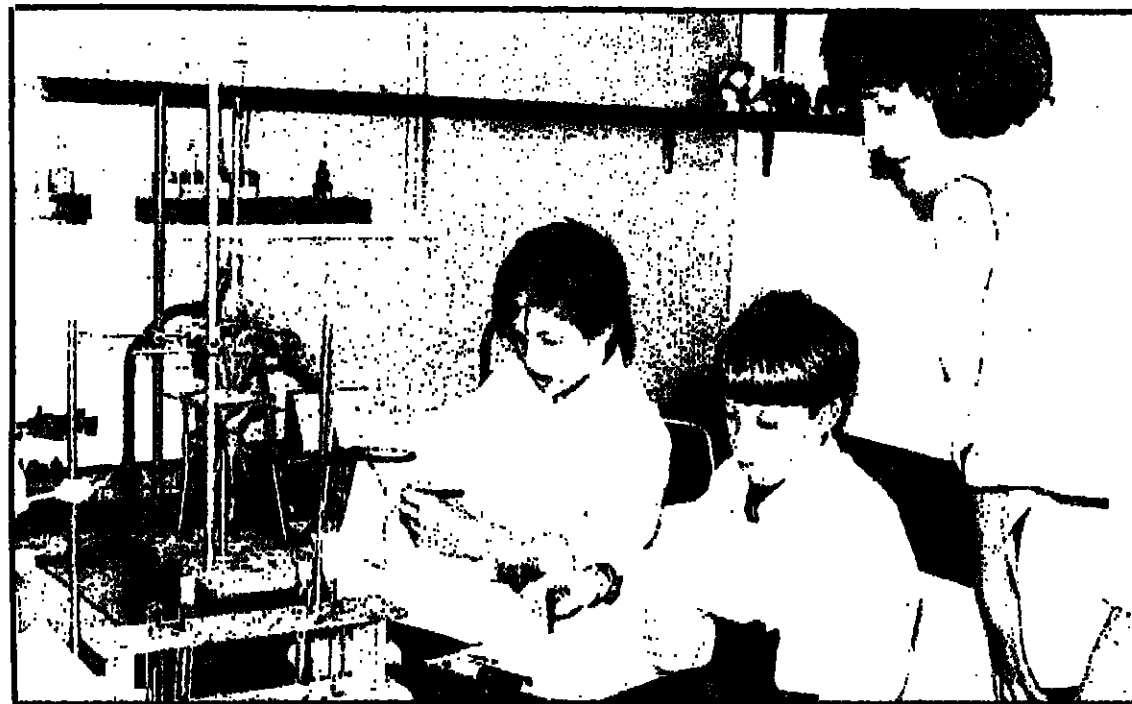
part in experiments the point of which is a mystery; we provide them with equipment which often multiplies the difficulties they face. We do not allow discussion time for children to match outcomes with their own ideas, or to ask questions of each other and we often fail to question ways which prompt their ideas rather than ours.

The battle to establish science as a natural part of the primary curriculum, to all intents and purposes, which it will have been a battle hardly worth fighting if its practice is ill-organized, badly thought-out and ineffective. Science in the primary school is a process; what this means at its simplest is that the real work takes place when the children are experimenting. We can neither afford failure in our understanding of where children are in the process, nor can we afford to fail to provide children with the necessary background and focus to enable the work to take place effectively. If we fail on either of these counts something will be taking place in the classroom which looks like science but it will not be of the quality we know primary children to be capable of.

For us as a staff our work became something of a game, but our experience represents that of children in classrooms it suggests that quality science work might be the norm rather than the exception. Our task now is to change our focus from the theory of what should take place to the practice of how it takes place; to see how far it meets the needs of the children we are teaching. In a process-orientated curriculum practice - and the children's needs - are the focus, and the children's needs the focus, tuning we can provide.

Martin Skelton is head teacher Balmes Primary School, Bromley, Kent.

From work to school



Industrial feedback

LESLEY DAY

The need to increase the amount of science taught at primary school level is one of the few points that politicians and educationists manage to agree on. But despite widespread concern that science should be developed more fully in primary schools, progress has been slow.

It is said that children are put off science because of its dull and "difficult" image. This is just one reason why staff at Beecham Research Laboratory at Brockham Park, Surrey, accepted the challenge to make fairly complex science both fun and relevant to young children by demonstrating school laboratory techniques in operation in industry.

Staff at Brockham Park felt that they could help promote science at school level and three years ago they asked for advice from local schools on the most effective way of achieving this. They were contacted by teachers from Reigate College, who maintained that more should be done to stimulate the interest of primary school pupils in science.

The scheme that was devised is now in its third year and has proved to be such a success that it looks set to run for many more. Every year 16 primary schools in the Brockham Park area put forward three final-year pupils to spend two days at Reigate College at the end of the summer term. The 48 children are split into three groups, and throughout their visit they are closely supervised by young scientists from Beecham, and staff and sixth-formers from Reigate College. The children do experiments in physics, chemistry and biology and the overall theme of the two days' experiments is separation.

The first morning is spent getting the

children used to working in laboratories by doing a series of short, simple experiments, such as measuring the pH of various solutions, watching crystals grow under a microscope, programming a computerized truck to move, and growing bacteria on agar dishes. The children are encouraged to write down what they observe for each experiment.

The experiments become progressively more difficult. In the afternoon the children find themselves sorting out Uncle Joe's picnic: he has dropped everything on the beach and they are given the task of rescuing brandy, ribena and salad dressing from the sand.

During the physics sessions the children learn how to compose tunes and set up and operate traffic lights using electronic boards and the microchip; in the biology sessions they learn how to identify which bacteria are sensitive to penicillin.

On the second day the children do project work. Separating beetroot juice is a favourite project, involving the use of resin to separate the different colours, and the children enjoy seeing yellow, scarlet, pink and orange fractions appear.

The experiments are designed to be visual and exciting, but also to be relevant to everyday situations. The emphasis is on the children conducting experiments, and observing and recording their results on the worksheets that accompany such experiments. Over the two days a folder is built up as a record of what has been learnt.

Classes are also taken to Beecham's Brockham Park Research Laboratory

to see how the techniques they have learnt in the school laboratory are applied in industry.

The success of the scheme is evident by the children's enthusiasm. Quite a lot is asked of these 11-year-olds: they spend two days in unfamiliar surroundings, paired with children from different schools; they are required to concentrate very hard to assimilate the new ideas, but there is no holding them back as they tear round the school to the next session in their cast-off Oxford shirts which serve as lab coats. The scheme has now become so popular that the primary schools actually have to run competitions to decide which children can take part.

The scientists from Beecham find the exercise rewarding too: "At that age the children are not inhibited at all and will ask all sorts of questions... the kids really seem to enjoy it and I would like to think that some of the experiments will be used by the schools," says one of the scientists. Primary school teachers often do not feel confident enough to teach science and some may not even have studied science to O level. Initiatives by the Department of Education and Science to provide in-service training for teachers and grants to improve the effectiveness of primary-school science teaching, have gone some way to solve the problem. But there is still massive scope for industry to get involved.

While some people would measure the success of such schemes by the number of children opting for science subjects at secondary school who might otherwise not have done, the scheme's certain success lies in arousing interest and enthusiasm in science.

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A BUCKLE UP PUBLICATION

On-site science

It can be done in north London, it can be done anywhere. When Monica Hale arrived at the Polytechnic in North London in Holloway Road as Manager of the Urban Spaces Scheme, she spent a couple of hours on the pavement outside studying its mini-beast population.

With the traffic roaring by and not a tree in sight, it is not the environment which most readily springs to mind for the study of ecology. But Monica found plenty to observe.

"For many children the way in which plants and animals adapt to life in an urban street or on a rubbish tip is far more relevant than knowing which trees thrive at the top of a mountain," she points out. "Wherever your doorstep happens to be, a rich source of scientific material is to hand. We should make the most of it."

Set up three years ago as an MSC Community Programme, the Urban Spaces Scheme aims to help schools maximize the potential of the local environment for educational use, particularly science activities with an ecological, conservation-based approach.

It employs 80 graduates in environmental and biological sciences, together with eight artists who produce the graphics for an increasingly wide selection of resource materials.

Field-work in the inner-city boroughs around the Polytechnic - Camden, Hackney, Haringey and Islington - which have been identified as among the most deprived areas in the ERG, might sound like a contradiction in terms.

Indeed, virtually the only open space in the borough of Hackney is the 23 acres of woodland at Abney Park cemetery. However, thanks to the scheme, many local schools now regularly use it for nature studies, having realized that practical experiments across the science curriculum are not only possible, but also highly relevant to the lives of children growing up in city surroundings.

For richer resources are to be found within any school site than on the pavement outside here. Our aim is to show teachers how they can capitalize on them and develop them.

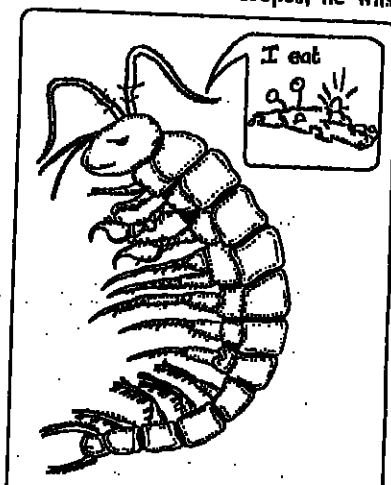
"In fact I believe they are potentially even better as a source of learning than field trips which tend to be habitat-based. We want to concentrate on concepts like succession, camouflage and food chains which involve a broad approach."

The scheme was originally conceived by Gillian Bantock, senior lecturer in biology at the Polytechnic.

GILLIAN THOMAS

after he had found a consistent ignorance of ecological principles among his students. He also felt they should be making much more use of the local environment.

As the Polytechnic had some spare space and was willing to donate initial equipment like microscopes, he was



Water Shrimp

able to obtain MSC funding (currently over £14 million per year) to run the Scheme as an urban ecology unit and advisory service for teachers.

In January 1985 another branch was started in Enfield. Fourteen graduates are based there, working in conjunction with the borough's science adviser and staff at Capel Manor Environmental Education Centre.

There are considerable variations between the work done at each school, but basically the team offers "On-site INSET" advice and training to teachers. They aim to withdraw as soon as the school has established good environmental practice.

"But our role is not just to get schools to develop their own habitats and let the children get on with the weeding," stresses Monica Hale. "Rather, the school must first think about why they need the resource and how its management can be used as an educational tool."

"Only in this way will the children adopt a problem-solving approach to their environment and really start to think about why things happen, like why seeds grow (or fail to), how insects

adapt to their surroundings and how the links of a food chain fit together."

The Scheme's work at schools is therefore centred on both practical advice and curriculum development. For example, planning a nature garden might include tips on where to get a grant and how to fill in the necessary forms, though first the team would make sure that the school knew how to use the garden effectively as a resource for classroom work.

In the longer-term Monica Hale would like every school to have a teacher trained in environmental education who would be responsible for integrating this approach into the whole curriculum.

Projects with local schools vary widely. At Southgate High School, Enfield, a set of role-play exercises was devised for a TVEI course to highlight the vested interests which occur when an actual situation in the Lea Valley. By contrast, two special schools in Hackney and Islington are now growing vegetables from seed and using them in cookery lessons.

Resource packs for use with children of all ages are being based on this practical work. One of them, *Planning Your School Nature Garden*, contains a management handbook and illustrated cards for ecological projects such as pond-dipping and gardening for butterflies (£2.00).

A *Pond Snack Pack* has suggestions on how the teacher might use a pond and illustrates food-chains through a series of humorous word-cards. Others in the series cover mini-beasts and urban plant ecology.

One of the latest is a tree-planting guide, accompanied by a computer program, "Jack and the Beanstalk", which simulates tree-growth. A project on hawthorns and parasitism of holly leaves has also just been produced for GCSE and A level courses.

Meanwhile Enfield schools are testing a habitat creation procedure which besides a practical advice includes a form requesting details on the proposed educational use of the area once it is established.

As a member of the British Ecological Society, Monica Hale is currently preparing a policy document on ecology in the 4 to 18 curriculum, clarifying its relevance in the GCSE and primary science courses. It will be published in October.

Details of resources are available from Urban Spaces Scheme, Polytechnic of North London, Holloway Road, London N7 8BB. Tel. 01-607-7282; ext 2118.

Dip in and use

Biology in Action. By David Luxton. Blackie. £4.25. 0 216 9119. Teacher's Book £3.95. 91197.

What science course to provide in the third year of secondary education has long been recognized as a problem, as has what textbook to use. Blackie offer a solution with their *Biology in Action* series and with their *Biology* book to accompany *Physics and Chemistry*. It is now complete.

The biology book has seven chapters and each is divided into topics organized on double-page spreads. There are 66 of these, with material in each for a typical double lesson time span, so there is more than enough for a one-year course. However, the book is not intended to be used as a complete course. Flexibility is the key, and teachers are supposed to dip in and use the material as they need. Thus, the whole series could be used whenever

Each spread is attractively designed and alternate ones are in full colour. The illustrations are clear but the small size of some of the photographs obscures their clarity. One major criticism can be levelled at the illustrations however. There are only four photographs in the whole book, and two of these are mangle-headed children (pages 5 and 53) and two in the section on the world health problem (pages 122, 123). Only one drawing has someone with shaded skin (page 13). Information is in short paragraphs and there are questions which test understanding.

The pupil's book has a few practical exercises - there are some more in the Teacher's Guide - and all are familiar, instructions are simple and straightforward and especially commendable is the procedure used to introduce the interpretation of the microscope image (page 9). As the practical activities are

for homework and if a teacher is absent, the depth of treatment is such that children will have an introduction to a topic rather than detail which will be repeated during a GCSE course. In other words, selected topics will provide a foundation for continued studies in biology or science.

The accompanying Teacher's Guide gives background information, answers to questions and notes on practical work. There are 11 pages of copyright free material and 10 of those are word searches or crosswords. This is a limited selection of activities.

One of the novel features of the pupil's book is found at the back; the author has combined an index and a glossary, so most words are briefly defined before their page reference. These words appear in bold type in the text too. There is a short appendix on "Looking Ahead", which gives one line outlines of careers related to biology and as these range from baking technology, hardfacing, pharmacy to zoo-keeping, it is obvious that the author appreciates the ability range and aspirations of his readers.

Blackie's *Biology in Action* series is a

EXTRA

Watch out

Around 20,000 young people aged between seven and 17 are expected to take part in an acid rain monitoring project this month (September).

Watch, the junior wing of the Royal Society for Nature Conservation, is distributing kits which include a rain collector, acid detector strips, test solutions, a syringe for measuring volume, recording card and background information to schools, youth groups, Watch members, families and individuals who will monitor the pH of rain and gather information on weather conditions and local pollution sources throughout the one-month period.

The data will be used to provide rapid computer analyses of local, national and European variations in rainfall pH; and the results will be promptly fed back to the project participants in a number of ways, including a specially designed program package for BBC micro users.

A pilot Acid Drops survey last year in which over 10,000 young people took part provided valuable information about the link between polluted rain and prevailing weather patterns. This year's much larger project will include an important European perspective.

Forty Norwegian schools have linked

up with schools in Hertfordshire and teachers in Belgium and Sweden will also be using the kit.

According to Charles Thomson, co-ordinator of the project, this will provide new insights into the nature of transboundary pollution, both for the children taking part in the project and the environmental scientists analysing the results.

"There is enormous pressure in Europe to get an international monitoring programme going," he says. "Next year is European Environment Year, so this is an ideal time to set up a co-operative environmental pollution monitoring project."

The project, which has the backing of the Department of the Environment, includes representatives from the Field Studies Council, Leeds University and Hatfield Polytechnic, research bodies at the Department of Trade and Industry and the Institute of Terrestrial Ecology and BP and BDH chemical industries.

The kits cost £4.50 (£2.50 to Watch members). Details from Charles Thomson, Acid Drops Project, Epping Forest Conservation Centre, High Beach, Loughton, Essex IG10 4AF.

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WARWICK PROCESS SCIENCE

"an exciting, thought-provoking stimulating and yet demanding science teaching project" TES
Warwick Process Science is a guide for teachers to adapt process work in line with the Science GCSE examination. It provides ideas, materials and detailed instructions for experiments, together with assessment guides and student worksheets.

Offering a challenge for pupils across the ability range, Section One for 11-12 year olds is now available and has been very well received. Section Two will be published January 87 and will cover 12-14 years with some 30 units; Section Three will be published in 1988 and takes students through to the GCSE examination.

Sample packs and further details available from Ashford Press Publishing, 1 Church Road, Sheffield, Hampshire, SO9 2HW. Tel: Wickham (0329) 834266.

EXTRA

Coursework assessment

A powerful weapon

PHILLIP ARMITAGE

By now, science departments will have made their choice of which GCSE syllabus they will be using in 1988. No doubt some will have been left little choice by school or I.e.s. administrators, but for the first time schools have a powerful weapon in their hands. The GCSE groups are in a free market situation and the one that does not answer the needs of its science teacher will find itself trying to manage an economically non-viable scheme.

Most important, however, the proper use of school-based assessments can do a great deal towards improving children's performance in science and hence their enjoyment and acceptance of it.

The DES has offered a partial solution to the first of these by means of an Educational Support Grant (ESG). Central Government will allocate money for GCSE Science and Technology on a per capita basis. The fund, which should be available during the 1987 winter term, will amount to some £500-£900 per science department, depending on size of school.

It is the school-based assessment of practical skills which, ultimately, will cause greatest concern for staff. Now, we have to consider process as well as product skills, criterion referenced schemes of assessment, not norm referenced ones.

I had better explain what I mean by these terms. (There is a variety of conflicting definitions and I know mine will not satisfy everyone.) Process skills are those skill elements in a practical investigation for which there is no permanent record, other than the one the teacher makes. An example would be "careful observation". Let us say a pupil is carrying out an investigation to determine the amount of weak acid present in 25ml of fresh lemon juice. Unless the teacher (assessor) actually watches the pupil at the end point, say, 20.3ml how can the teacher know that the pupil is consistent, but high, reading of 21.3ml?

Ah, you will say, that is not a very good example of "careful observation". It would be better to use this to assess "careful manipulation". And here is the first major problem associated with process skills. By their very nature, it is almost impossible to clearly separate one skill from another. Practical work, particularly investigation work, is an amalgam of fairly few level skills. To identify any one skill absolutely and without interference from other skills can only be achieved by "set piece investigations" which become increasingly meaningless as their target becomes more precisely known. (I am tempted to propose a new law: $dm \cdot dp = h$, where p = level of precision, m = accuracy of meaning and h is, however, Planck's constant.)

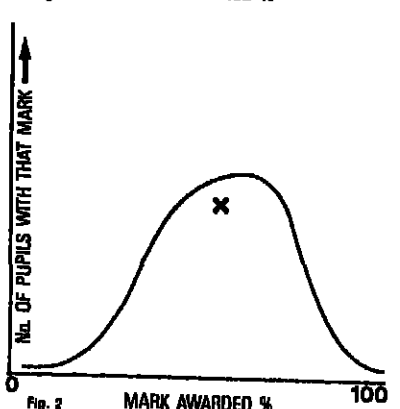
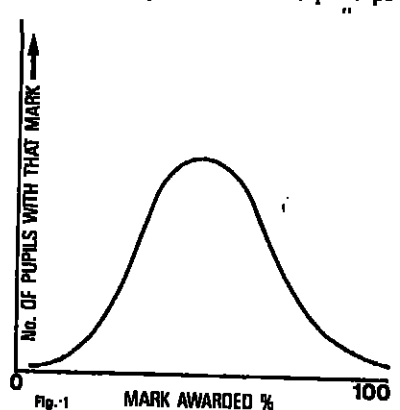
Product skills are comparatively easy. These are the skill elements in a practical investigation for which there are products which can be considered once the work is completed. An example would be "able to communicate scientific information concisely and unambiguously".

All science teachers are used to assessing product skills, so these should not need amplification. Norm referencing put crudely, this is where the performance of one child (or a group of children) is measured against the "norm" for that age/sex of pupil. Obviously, this is achieved by the creation of a rank order. In GCSE and GCSE examinations, it has meant that even pupils who make a determined effort and can do well can, in moderation, have all evidence of success smashed.

Each of us has tried to help pupils who felt sure they would achieve a B or C pass only to find them with a "U". How does this happen? There are a number of reasons, but the most common is norm referencing.

mon is norm referencing. An examination board, in dealing with thousands of entries for a paper, is quite fair in assuming that, under normal circumstances, if the questions were not in some way "skewed", a large number of pupils would yield a "normal distribution" of results (see fig 1). In fact, many examinations yield results such as shown in fig 2.

In fig 1, a "pass" may be 45 per cent. When a norm-referenced result produces a graph such as fig 2 where too large a proportion of pupils might pass (that is, the exam might be considered "too easy") then the board, via its moderation procedure, sets about converting the results. A pupil X may have achieved reasonable success, coming out of the exam room feeling that they have been quite successful, perhaps



getting well over 50 per cent - and they have. Moderation processes soon change this and the normalization of the result will end up by declaring that this pupil has "failed".

This is so patently unfair that the sooner norm-referencing ceases, the better. Pupil X in the above example will, in fact, be quite capable and 50 per cent (a pass) a fair measure of the child but, if that child is in a group where a large proportion achieve better than this 50 per cent, then normalization of this result could leave them with less than 45 per cent - a fail.

Criterion-referencing on the other hand, measures performance against agreed criteria. These might be as specific as "can read a thermometer to within 0.1°C". With very specific criteria such as this, it is a simple matter to devise a yes/no test that enables the teacher to decide whether or not the criteria have been met (this is the basis of the "Science Certificate" scheme for "non-examination" type pupils developed jointly by teachers from Avon and Wiltshire). The GCSE criteria are not so prescriptive, and so it seems quite reasonable to respond to the criteria by means of a four-point scale - range from 3 (met the criteria without help) to 0 (unable to meet the criteria).

"It does worry me when I see some GCSE boards proposing a seven or nine-point scale. The idea, presumably, is that by using a nine-point scale on three separate occasions, the marks for a class will range from 27 to 0, thus enabling the pupils to be put in a rank order. This smacks so much of norm-referencing as to be of very little concern. It is asking too much of itself responsible for the safe conduct of an investigation (lesson to have to apply such fine grading of performance. The four-point scale is simple and effective and can be used diagnostically."

The rubric with some GCSE papers suggests that assessment of pupils is to be done by "summing performance"

- that is, one mark is given for achievement of one skill level, another for some advancement, and so on. In Avon, all science teachers were given the opportunity to attend a practical workshop and, with guidance, were asked to operate a scheme of criterion-referencing of process skills with a class of fourth years, for whom they had shared responsibility, carried out an investigation. Just under 600 took part using CLASS material (Classroom Assessment of Science Skills) and the overwhelming response was one of relief.

It was found that rather than "summing pupils' marks, consistent and appropriate assessment was achieved by the reverse process. Teachers found it useful to assume all pupils had a score of three (this is when using the four-point scale 3-2-1-0) and to deduct marks depending upon the level of help offered during the course of the work. A pupil doing well and needing little or no assistance is automatically awarded three, but someone needing significant help over perhaps one or two points may have their score reduced by one.

One interesting point about the four-point scale which looks as if it is the one to be used by most boards, is graph corresponding to fig 1 is shown, the result is a surprise to many (see fig 3).



This is saying that, in practical assessments such as are required by GCSE, a large proportion of pupils can be expected to be awarded marks of three or two and a few only will be awarded one or zero.

This should not dismay anyone. It is only saying that, after four or five years of practical laboratory work, the majority of pupils have mastered the basic skills of observing accurately etc. This should be a source of satisfaction to science staff. The skills are, after all, a fairly low level and the whole purpose of our efforts in the laboratory is to inculcate basic scientific skills; we should not be too surprised or concerned when we succeed. It will prove illuminating if, when it comes to moderating results such as are displayed in fig 3, attempts are made to display results more in line with fig 1. A four-point scale will mean such manoeuvrings are neither possible nor proper; a seven or nine-point scale will make it feasible but most unwelcome.

The GCSE practical skills encompass some four or five skill areas within which pupils must be assessed, each on three separate occasions. At least one board stipulates that for its practical examinations, these assessments must be done on an individual basis and as special assignments. In my view, this particular subject panel seems to be thinking in terms of a formal product of an examination rather than looking at criteria-referencing as an opportunity to apply formative assessment. Besides misusing what could be a useful tool in our teaching armoury, this board is asking too much in terms of resources. A class of 27 pupils will need 81 individual experiments for the assessment to be completed - and, if the staff can fit them in, a few more for the teaching to proceed.

In all other boards where group work is permitted, an "average class" of 27 will create a need for some 400 or so assessments. In fact, over half of these assessments are of product skills and so a normal investigation lesson can be used to assess the whole class on

EXTRA

Process learning and assessment

Working harder, learning more

The Suffolk Co-ordinated Science Development is a joint SSCR and I.e.s. project. Its outcome is a three-year course leading to a double GCSE certificate and pupil profile. After one year of its pilot implementation, two-thirds of Suffolk secondary schools and 9,000 pupils are committed to the course.

It embraces physics, chemistry and biology in 36 modules. There are three main differences from most other double science courses so far in operation:

a) Prescribed content has been reduced to allow time to develop process.

b) All assessment is criterion-referenced. There is a strong leaning towards assessment of processes and skills, such as planning and designing, observing, investigating, communicating, working together as a team, manipulating apparatus safely and accurately and being concerned for applications of science in society. Knowledge and understanding are assessed by differentiated unit tests which are also linked to specific criteria.

c) Better teaching/learning strategies are emerging as a result of this approach. Active learning by pupils and positive assessment encourages enjoyment and motivation. Pupils feel as if they are working harder and learning more. They are encouraged to be creative and diverse in their activities and are credited for what they have achieved, even when it is different from someone else's achievement. The fact that there is not so much prescribed content does not mean that pupils are not learning as much. On the contrary, pupils have probably got access to more content, and they certainly are gaining skills which will enable them to be scientifically more literate.

How is our process assessment achieved in practice? It takes place in the normal course of a practical lesson, not in formal "test" situations. We emphasize that the most important thing that is happening in the classroom is the quality of the teaching/learning process, not the assessment. Assessment should become an integral part of that process, not the reason for the lesson. Two examples illustrate this:

1 Observation
When assessing for observation, teachers use a list of descriptors for three levels of achievement (see box). Teachers have to match pupils to one descriptor for each level of achievement whilst pupils are working. The teacher will have a proforma on which to record this as he or she moves round the class. Rarely would a teacher be expected to assess all the class members in one lesson, but rather in two or three lessons, wherever the opportunity arises for the pupils to demonstrate observation skills.

The opportunity will arise if lesson plans allow for it. The whole process depends on the teacher being freed to



Active learning encourages enjoyment

observe while pupils are working individually, or in groups, on a task that they can follow without too much teacher-direction. Thus, fewer lessons will have a didactic teacher input. Obviously teachers talk to the class at certain key points, but much longer periods of time are given over to pupil activities.

At first, many teachers found it hard to do the assessments in the time expected, but as they learned new strategies it became easier and they saw the benefits. A teacher, assessing pupils for observation skills, has to be sure that each pupil has observed individually. For example, observation may be assessed in one module from drawings of cells made by pupils. It is all too easy for the pupil to copy a diagram from the board (if the teacher has told him or her what to look for) or from another pupil's book.

The teacher cannot just mark the books, but must circulate to ensure that each pupil really has observed for him or herself. This does result in better individual attention, and teachers have been made aware of problems in pupils that previously might have passed unnoticed. It enables remedial measures to be taken at an early stage, and better learning overall. ("When we were looking at skulls I learned a lot about looking at every detail of things. Instead of just looking at something I looked at all the small details." [Christina, aged 13])

2 Manipulative skills
In order to assess simple manipulative skills, pupils have a series of "can-do" tests to pass, such as "can filter a solution", "can take a pulse rate", "can wire up a plug". Most of these are easy

JENNY VERSEY

to assess. If a pupil has a clear solution, then that is evidence that he or she can filter successfully. The teacher doesn't necessarily have to stand and watch the whole procedure. If the pupil wires up a plug so that an appliance works, then that is easy to assess. A pupil can also negotiate with a teacher when he or she is ready to be tested. Because pupils know that being able to do these things counts towards their assessment, they are motivated to learn how, thus building up practical confidence and competence.

Teacher assessment is moderated by group meetings with two to three teachers from each of three schools, and a chief moderator who liaises between these groups. Case studies are presented to the group, and the aim is to agree which criteria each "case" matches. This standardization of teacher assessment enables teachers to argue and discuss and finally agree on what each "descriptor" means and how it should be interpreted. What is moderated is the skill of the teachers in making judgements, rather than the pupils' work.

No-one would claim that all the problems of this type of assessment have yet been solved. What has happened is that pupils now know that we value their individual small achievements, and that everything they show that they can do counts towards their final grade. This encourages them to take more care over all their work, including the development of practical and process skills.

Part of my job this year has been to evaluate the course from the pupils'

point of view. Many pupils have said that they feel that they learn more through active learning, because they (not the teacher) are doing all the work! What they mean is that by starting from their own point of reference, thinking it through and working out strategies for themselves, science has more meaning for them.

The teacher is a crucial source of information and help, but the relationship is different. Teachers, too, are now more concerned with the quality

of pupil learning rather than "getting through the syllabus". It is amazing how quickly assessment of process has created real changes in classroom practice. A small revolution has occurred in Suffolk classrooms.

Co-ordinated Science (The Suffolk Development) will be published by Collins Educational, and the GCSE will be available to schools outside Suffolk from September 1987 from MEG Jenny Versey is SSCR Regional Project Officer for East Central England.

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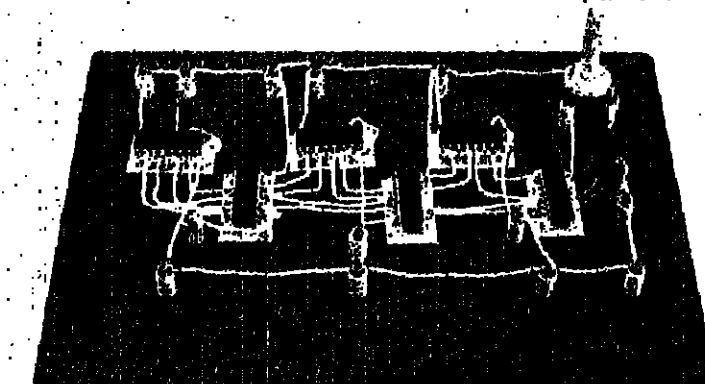
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Scale 1 Posts

CHESHIRE

EDUCATION COMMITTEE

ART, CRAFT & DESIGN - Scale 1

CHRISTIAN HIGH SCHOOL

Christleton, Chester CH3

1988 on roll, Sixth Form 750

Christleton is a village 3 miles S.E. of Chester

Required for January 1987. To teach at all levels up to and including A level.

Application form and further details from school, returned by 10th October 1986. 131222

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Computer Studies

Heads of Department

Scale 1 Posts

CHESHIRE

EDUCATION COMMITTEE

ART, CRAFT & DESIGN - Scale 1

CHRISTIAN HIGH SCHOOL

Christleton, Chester CH3

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STAFFORDSHIRE

EDUCATION COMMITTEE

ART, CRAFT & DESIGN - Scale 1

CHRISTIAN HIGH SCHOOL

Christleton, Chester CH3

1988 on roll, Sixth Form 750

Christleton is a village 3 miles S.E. of Chester

Required for January 1987. To teach at all levels up to and including A level.

Application form and further details from school, returned by 10th October 1986. 131222

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Craft, Design & Technology

Heads of Department

Scale 1 Posts

CHESHIRE

EDUCATION COMMITTEE

ART, CRAFT & DESIGN - Scale 1

CHRISTIAN HIGH SCHOOL

Christleton, Chester CH3

1988 on roll, Sixth Form 750

Christleton is a village 3 miles S.E. of Chester

Required for January 1987. To teach at all levels up to and including A level.

Application form and further details from school, returned by 10th October 1986. 131222

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SECONDARY SCIENCE

continued

Scale 2 Posts and above

ISLE OF WIGHT
Please see Main Display Advertisement under the subject heading other than by 134890 (12593)

SECONDARY EDUCATION
DEPUTY HEADSHIPS

REDDOCK SCHOOL
Dursley, GL11 4BY

(11-18 mixed comprehensive, 1250 on roll)

SECOND DEPUTY HEAD

Required for 1st January 1987. Second Deputy Head for this Group 12 school. The successful candidate will be expected to play a major part in the senior management team, with particular responsibilities for the general pastoral work of the school and for the promotion of equal educational opportunities between the sexes.

Apply by letter, with full c.v., to the Headmaster, from whom full particulars are obtainable (S.A.E. please).

Applications within 14 days please; interviews to be held during the week of 20th October.

HEAD OF DEPARTMENT

CHELTEMHAM BOURNSIDE SCHOOL & SIXTH FORM CENTRE

Warden Hill Road, Cheltenham GL51 5EF.

(Comprehensive School of 1850+ pupils, sixth form rising to 400+)

HEAD OF SCIENCE

(Scale 4)

Required for January 1987. Applicants should be graduates of any science discipline, with wide experience of Science Education and curriculum matters. House of Biology, Physics and Chemistry (S.C.E.) in the department. Success in this key post is a large and complex institution will demand strong leadership qualities. There is a suite of laboratories all of which are well equipped.

Applications to the Head by curriculum vitae and a short letter explaining the applicant's philosophy towards science teaching 11-18 years. Please quote "TES" in your application.

SCALE 1 POSTS

SIR THOMAS RICH'S SCHOOL

Oakdale, Gloucestershire GL2 0LF.

(Boys Grammar School, 470 on roll)

TEACHER OF MATHEMATICS

Required for 1st October, 1986 to end of the Autumn Term, graduate mathematician to teach up to and including 'A' level Maths and Further Maths.

Apply immediately to the Headmaster with c.v. and names/addresses of two referees.

TENNESBURRY SCHOOL

Newtown, Tewkesbury GL20 8DF.

(11-18 comprehensive school, N.O.R. 1200)

TEACHER OF ENGLISH

Required for January 1987 teacher of English to join an enthusiastic, successful innovative department. Ability to teach GCSE, CPVE and 'A' level desirable.

Please apply to the Headmaster with full curriculum vitae and names and addresses of two referees. Further information available on request (S.A.E. please).

PRIMARY EDUCATION

DEPUTY HEADSHIPS

CAM WOODFIELD JUNIOR SCHOOL

Woodfield, Dursley, Glos. GL8 0LU, (N.O.R. 208)

DEPUTY HEAD TEACHER

Required for January 1987, Deputy Headteacher Group 4.

An enthusiastic and confident teacher required for the above post. An ability to take on administrative roles and lead in curriculum development is essential.

S.A.E. for job description and forms to the Head Teacher.

STRATTON C. OF E. PRIMARY SCHOOL

Thames Valley Road, Stratford, Chesham GL7 2HQ.

(185 on roll)

DEPUTY HEAD TEACHER

Required for the beginning of the Spring Term 1987, with responsibility to the Head Teacher for infants. Vacancy due to promotion.

Details and application forms from the Head Teacher. Please enclose S.A.E.

SPECIAL EDUCATION NEEDS ADVISORY

AND SUPPORT SERVICE

AREA ADVISORY TEACHER

SPECIAL EDUCATION NEEDS (Scale 3)

Applications are invited from experienced teachers with an appropriate advanced qualification, with effect from 1st January 1987.

The successful applicant will be expected to work within primary and secondary schools in the Forest of Dean area of the County as a member of the Area Special Needs Team.

Further details and application forms available from Primary Personnel TGT, Education Department, Shire Hall, Gloucester.

BERKELEY VALE COMMUNITY SCHOOL

Worcester, Warwickshire, GL3 1RS.

COMMUNITY SCHOOL WARDEN

Required for 1st January 1987, a highly qualified and experienced person for the post of Community School Warden (Post No. C2000001).

to be paid Range 4 (points 4-9) J.N.C. for Youth Workers and Community School Wardens established in 1981. The successful applicant will be required to coordinate and develop the community services, recognising that education, in its broadest sense, is a life-long process.

Letters of application, together with c.v. and the names and addresses of two referees, should be sent to the Headmaster, from whom further particulars are available (S.A.E. please).

Closing date: 28th September, 1986.

NORTH KENT AREA

TEACHER OF ENGLISH

Required for January 1987, an enthusiastic and confident teacher to join an enthusiastic, successful innovative department. Ability to teach GCSE, CPVE and 'A' level desirable.

Please apply to the Headmaster with full curriculum vitae and names and addresses of two referees. Further information available on request (S.A.E. please).

BARKING AND DAGENHAM

LONDON BOROUGH OF

BARKING AND DAGENHAM

WARRIN COMPREHENSIVE

Whitleshale Lane North, Dagenham, Essex, RM8 2JL.

(11-18 Mixed)

NORTH WEST KENT AREA

TEACHER OF ENGLISH

Required for January 1987, an enthusiastic and confident teacher to join an enthusiastic, successful innovative department. Ability to teach GCSE, CPVE and 'A' level desirable.

Please apply to the Headmaster with full curriculum vitae and names and addresses of two referees. Further information available on request (S.A.E. please).

BARKING AND DAGENHAM

LONDON BOROUGH OF

BARKING AND DAGENHAM

WARRIN COMPREHENSIVE

Whitleshale Lane North, Dagenham, Essex, RM8 2JL.

(11-18 Mixed)

NORTH WEST KENT AREA

TEACHER OF ENGLISH

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Please apply to the Headmaster with full curriculum vitae and names and addresses of two referees. Further information available on request (S.A.E. please).

Closing date: 28th September, 1986.

AVON COUNTY

BRIMHAM GREEN SCHOOL

Brimscombe, Glos. GL7 2JL.

(11-18 Mixed)

TEACHER OF ENGLISH

Required for January 1987, an enthusiastic and confident teacher to join an enthusiastic, successful innovative department. Ability to teach GCSE, CPVE and 'A' level desirable.

Please apply to the Headmaster with full curriculum vitae and names and addresses of two referees. Further information available on request (S.A.E. please).

BARKING AND DAGENHAM

LONDON BOROUGH OF

BARKING AND DAGENHAM

WARRIN COMPREHENSIVE

Whitleshale Lane North, Dagenham, Essex, RM8 2JL.

(11-18 Mixed)

NORTH WEST KENT AREA

TEACHER OF ENGLISH

Required for January 1987, an enthusiastic and confident teacher to join an enthusiastic, successful innovative department. Ability to teach GCSE, CPVE and 'A' level desirable.

Please apply to the Headmaster with full curriculum vitae and names and addresses of two referees. Further information available on request (S.A.E. please).

BARKING AND DAGENHAM

LONDON BOROUGH OF

BARKING AND DAGENHAM

WARRIN COMPREHENSIVE

Whitleshale Lane North, Dagenham, Essex, RM8 2JL.

(11-18 Mixed)

NORTH WEST KENT AREA

TEACHER OF ENGLISH

Required for January 1987, an enthusiastic and confident teacher to join an enthusiastic, successful innovative department. Ability to teach GCSE, CPVE and 'A' level desirable.

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Please apply to the Headmaster with full curriculum vitae and names and addresses of two referees. Further information available on request (S.A.E. please).

BARKING AND DAGENHAM

LONDON BOROUGH OF

BARKING AND DAGENHAM

WARRIN COMPREHENSIVE

Whitleshale Lane North, Dagenham, Essex, RM8 2JL.

(11-18 Mixed)

NORTH WEST KENT AREA

TEACHER OF ENGLISH

Required for January 1987, an enthusiastic and confident teacher to join an enthusiastic, successful innovative department. Ability to teach GCSE, CPVE and 'A' level desirable.

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MERTON

LONDON BOROUGH OF

MERTON

EDUCATION COMMITTEE

OPPORTUNITIES

Required for January 1987, an enthusiastic and confident teacher to join an enthusiastic, successful innovative department. Ability to teach GCSE, CPVE and 'A' level desirable.

Please apply to the Headmaster with full curriculum vitae and names and addresses of two referees. Further information available on request (S.A.E. please).

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NORTH WEST KENT AREA

75

**RICHMOND
UPON THAMES**
LONDON BOROUGH OF
RICHMOND UPON
THAMES
(An equal opportunity
employer)
**OLDFIELD HOUSE
SCHOOL**
Oldfield Road, Hampton,
Middlesex TW18 2HP
Special school for children
with emotional behavioural
and learning difficulties.
Aged approximately 7 - 12
years
**SCALE 1 TEACHER (plus
£726 Outer London
Allowance)**
Required for January
1987, an enthusiastic class
teacher to teach a small
group of children with a

variety of difficulties in a well structured environment.

An interest in music and/or drama would be an advantage although not essential.

Applicants are welcome to visit the school. Tel: 01-979 5102.

Forms and further details (including a.s.s.e.) from the Director of Education, Royal House, London Road, Twickenham TW1 3QB, re:tel: 01-899 6100.

For an interview with the teacher at the school by Friday 26th September 1986. (12441) 160022

**SUFFOLK
COUNTY COUNCIL
HILLDALE SPECIAL SCHOOL
Hitchcock Place, Sudbury,
Suffolk CO10 6NN
(Age Range 3-10 : 48 on roll)
RE-ADVERTISEMENT
Required for January, 1988
for 1 or 2 scorers (if possible)
Teacher - Scale 1 (pri-
v.S.A.) for a group of pri-
ary aged children with 2-5
Scale 2 (plus 5.S.A.) for su-
bly qualified and/or expe-**

accept curriculum responsibility for one or more of the following areas: P.E., Music, Art, Visual Arts, Career Development, Previous candidates will be re-considered and need not re-apply.

For further details and application form please send S.A.E. to the Roadrunner at the above address. Visiting hours are by appointment.

Closing date: 26th September, 1986. (37412) 1600

70. £1,884 – List 'D' Allowance.
 1. A minimum of 5 years' experience in a relevant teaching qualification and be a GTC.
 2. Candidates who are familiar with the Art and Design. An added advantage and the ability to teach general

**Strathclyde
Regional
Council**

THE COLLEGE OF EDUCATION LECTURER IN PRIMARY EDUCATION

ould have at least five years
ary school and preferably
nsibility.
\$9,321 to \$14,718 with entry
salary, which is at present
ions is Friday, 26th Septem-
d application forms are avail-
Craigie College of Education.

(0192) 260321

Strathclyde

**ORKNEY
ORKNEY ISLANDS
COUNCIL**

**EDUCATION
DEPARTMENT**

PRIMARY TEACHER

Applications are invited from suitably qualified teachers for the above post. Applicants must be registered with the General Teaching Council for Scotland.

Sunday Junior Secondary school is a combined primary and 4 year secondary school with a total roll of approximately 80 pupils.

The salary is in accordance with the Scottish teachers' Salaries Memorandum and a Band Allowance of £1,195.00 per annum.

Further details and application forms to be returned not later than Thursday 12th June 1986 may be obtained from the Director of Education and Recreation Services, Council Offices, 170000 Orkney, (SS856).

AYR SUB-REGION

SOCIAL WORK DEPARTMENT

TEACHER

Kearney School, Stevenston.
Salary Scale - £7,074 - £11,370, £1,884 - List 'D' Allowance, £279 - Secure Unit Allowance

Applicants must hold a professional teaching qualification and be eligible for registration with the GTC.

Preference will be given to candidates who are familiar with the new Standard Grade Course in Art and Design. An added advantage would be an interest in music and the ability to teach general subjects.

Application forms may be obtained from the Assistant Director of Manpower Services, Regional Offices, Ayr to whom completed forms quoting Ref. AY 098 should be returned by 28th May, 1986.

R.M.C. MCCULLOCH

**CRAIGIE COLLEGE OF
EDUCATION**

**LECTURER IN
PRIMARY EDUCATION**

Applications are invited from appropriately qualified teachers for a post within the Department of Primary Education. Applicants should have at least five years' recent experience in primary school and preferably have held a post of responsibility.

The salary scale is from £9,321 to £14,718 with entry point related to current salary, which is at present under national review.

Closing date for applications is Friday, 26th September, 1986.

Additional information and application forms are available from the Principal, Craigie College of Education, Ayr, KAN OSR, Telephone (0292) 260321.

INDEPENDENT EDUCATION

WEST SUSSEX
ST. ANDREW'S COLLEGE
 Bognor Regis, Sussex BN8 5JL
 Required for January 1987 a well qualified graduate teacher to teach English to 11-13 year olds. Salary £10,000-11,000. Further details and application form from the Headmaster, St. Andrew's College, Bognor Regis, Sussex BN8 5JL. (12394)

English

Heads of Department

LONDON
THE KING ALFRED SCHOOL
 Please see main display ad on this page. (12300) 123418

SURREY
THE GROVE SCHOOL
 Guildford, Surrey GU1 1AA
 Required for January 1987 a well qualified graduate teacher to be Head of English to teach throughout the Senior School to 11-13 year olds. A willing candidate to accept responsibility for the Library and School Magazine would be an advantage. Salary £10,000-11,000. Further details may be obtained. (12310) 123418

Other Assistants

SUSSEX
LANCING COLLEGE
 ENGLISH
 Required for September 1987 or as soon as possible a well qualified graduate teacher to teach ENGLISH at 11-13 level. This post could involve assistance with Drama teaching in the case of a suitably qualified applicant. The appointment will include a salary and pension. Applications enclosing curriculum vitae and names of two referees should be sent to: THE HEADMASTER, Lancing College, Bognor Regis, Sussex BN8 5JL. (12342)

Geography

Other Assistants

OXFORDSHIRE
SHRILAKSHI COLLEGE
 Shrivenham, Oxon. RG5 3JL
 Required for January 1987 a well qualified graduate teacher to teach Geography to 11-13 year olds. Salary £10,000-11,000. Further details and application form from the Headmaster, Shrilakshi College, Shrivenham, Oxon. RG5 3JL. (12343)

THE KING ALFRED SCHOOL, HAMPSTEAD
 Est. 1898
 This unusual school (all age 4-18; co-educational; non-denominational; rational; independent; day; number on roll 460) requires from January 1987

HEAD OF ENGLISH

(Burnham - Outer London; scale according to experience and qualifications).
 For a woman or man with energy, up-to-date experience and ideas. Willingness to experiment to raise with support teachers and Lower School staff to re-evaluate syllabuses and public exams at GCSE and A level; to help break down subject barriers.
 Application form and further details from: The Head, The King Alfred School, North End Road, London NW11 7HY (tel. 01-455 9601) enclosing SAE.

History

Other Assistants

LONDON N16
SENIOR GIRLS SCHOOLS
 History/Politics teacher full/part-time. Write with CV and two referees to Mrs. Joseph, c/o 35 Regent Road, N16. (97553) 123224

Home Economics

Other Assistants

DORSET
THE CROFT HOUSE SCHOOL
 Bournemouth, Dorset BH1 1AA
 Required for January 1987 a well qualified graduate teacher to be Head of Home Economics. Salary £10,000-11,000. Further details and application form from the Headmaster, The Croft House School, Bournemouth, Dorset BH1 1AA. (12344)

Mathematics

Heads of Department

LONDON
BLACKHEATH HIGH SCHOOL
 DEPARTMENT OF MATHEMATICS
 Required for January 1987 a well qualified graduate teacher to be Head of Department. Salary £10,000-11,000. Further details and application form from the Headmaster, Blackheath High School, London SE16 5JL. (12345)

Other Assistants

BUENOS AIRES
 Looking for adventure? Seeking a challenge? Want to see the world? See St. George's College, Buenos Aires advert in Overseas Section. (12346) 123494

DULWICH

ALLEY'S SCHOOL
 Townley Road, Dulwich, London SE20 8BU
 H.M.C. Co-educational Day School
 280 pupils, 220 in Sixth Form
 Required for January 1987 a well qualified graduate teacher to teach Mathematics to 11-13 year olds. Salary £10,000-11,000. Further details and application form from the Headmaster, Alley's School, Townley Road, Dulwich, London SE20 8BU. (12347)

LONDON N15
MICHAM SCHOOL
 84 Ladbroke Road, London N15 1AA
 Required for January 1987 a well qualified graduate teacher to be Head of Mathematics. Salary £10,000-11,000. Further details and application form from the Headmaster, Micham School, 84 Ladbroke Road, London N15 1AA. (12348)

LONDON N7
TEACHER REQUIRED FOR ACCOUNTS
 (A-level) starting mid-September. Further Mathematics would be an advantage also. Salary £10,000-11,000. Write with CV and two referees to Mrs. Joseph, c/o 35 Regent Road, N16. (97553) 123224

LONDON WC1

Required urgently, experienced teachers for P.T. and F.T. posts to teach 'O' or 'A' level Mathematics. Applied mathematics, statistics, etc. For interview please telephone the Registrar for write enclosing Curriculum Vitae. Central G.C.E. Tutorial Centre Ltd, 100 Regent Road, London WC1. Tel: 01-578 5888. (12349) 123424

LONDON
 Small independent school requires a Mathematics Teacher for children from 13 up to 16 years. Apply by phone for interview. (01-674) 123424

MIDDLESEX
THE LADY ELEANOR SCHOOL
 Hemel Hempstead, Herts. SG9 6JL
 600 girls, 11-18 years
 Required for January 1987 a well qualified graduate teacher to be Head of Mathematics. Salary £10,000-11,000. Further details and application form from the Headmaster, The Lady Eleanor School, Hemel Hempstead, Herts. SG9 6JL. (12350)

SURREY
ST. CATHARINE'S SCHOOL
 Bramley, Guildford, Surrey GU1 1AA
 Required for January 1987 a well qualified graduate teacher to be Head of Mathematics. Salary £10,000-11,000. Further details and application form from the Headmaster, St. Catharine's School, Bramley, Guildford, Surrey GU1 1AA. (12351)

MUSIC

CHESHIRE
THE GRANGE SCHOOL
 Hartford, Northwich
 Independent day educational Grammar School with Prep Dept. 750 pupils
 Required for January 1987 a well qualified graduate teacher to be Head of Music. Salary £10,000-11,000. Further details and application form from the Headmaster, The Grange School, Hartford, Northwich. (12352)

BERKSHIRE
BEARWOOD COLLEGE
 Wokingham, Berkshire RG40 1JL
 A well qualified graduate teacher to be Head of Music. Salary £10,000-11,000. Further details and application form from the Headmaster, Bearwood College, Wokingham, Berkshire RG40 1JL. (12353)

BUENOS AIRES
 Looking for adventure? Seeking a challenge? Want to see the world? See St. George's College, Buenos Aires advert in Overseas Section. (12346) 123494

HERTFORDSHIRE
SHERBROOK SCHOOL
 High Wycombe, Bucks HP12 3JL
 Required for January 1987 a well qualified graduate teacher to be Head of Music. Salary £10,000-11,000. Further details and application form from the Headmaster, Sherbrook School, High Wycombe, Bucks HP12 3JL. (12354)

SHROPSHIRE
REDSTONE COLLEGE
 (G.P.A. 5.0 H.M.I.S.)
 Required for January 1987 a well qualified graduate teacher to be Head of Music. Salary £10,000-11,000. Further details and application form from the Headmaster, Redstone College, Shrewsbury. (12355)

Physical Education

Other Assistants

BUENOS AIRES
 Looking for adventure? Seeking a challenge? Want to see the world? See St. George's College, Buenos Aires advert in Overseas Section. (12346) 123494

Religious Education

Heads of Department

LONDON NW5
SOUTH HAMPTON HIGH SCHOOL
 (G.P.A. 5.0 H.M.I.S.)
 Required for January 1987 a well qualified graduate teacher to be Head of Religious Education. Salary £10,000-11,000. Further details and application form from the Headmaster, South Hampton High School, London NW5. (12356)

Other Assistants

BIRMINGHAM
HOLY CHILD SCHOOL
 Rugeley, Staffs B67 5JL
 Required for January 1987 a well qualified graduate teacher to be Head of Religious Education. Salary £10,000-11,000. Further details and application form from the Headmaster, Holy Child School, Rugeley, Staffs B67 5JL. (12357)

Science

Heads of Department

CHESHIRE
THE GRANGE SCHOOL
 Hartford, Northwich
 Independent day educational Grammar School with Prep Dept. 750 pupils
 Required for January 1987 a well qualified graduate teacher to be Head of Science. Salary £10,000-11,000. Further details and application form from the Headmaster, The Grange School, Hartford, Northwich. (12352)

BERKSHIRE
BEARWOOD COLLEGE
 Wokingham, Berkshire RG40 1JL
 A well qualified graduate teacher to be Head of Science. Salary £10,000-11,000. Further details and application form from the Headmaster, Bearwood College, Wokingham, Berkshire RG40 1JL. (12353)

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LONDON N15
MICHAM SCHOOL
 84 Ladbroke Road, London N15 1AA
 Required for January 1987 a well qualified graduate teacher to be Head of Science. Salary £10,000-11,000. Further details and application form from the Headmaster, Micham School, 84 Ladbroke Road, London N15 1AA. (12348)

Yorkshire

ST. PETER'S SCHOOL
 (H.M.C. fully co-educational) from September 1987. Required for January 1987 a well qualified graduate teacher to be Head of Science. Salary £10,000-11,000. Further details and application form from the Headmaster, St. Peter's School, Yorkshire. (12358)

Other Assistants

BUENOS AIRES
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LONDON WC3
BEIS SHAMAT GRAMMAR SCHOOL
 14 Heathland Road, London WC3 1JL
 Required for January 1987 a well qualified graduate teacher to be Head of Science. Salary £10,000-11,000. Further details and application form from the Headmaster, Beis Shamat Grammar School, 14 Heathland Road, London WC3 1JL. (12359)

SOMERSET
THE GRANGE SCHOOL
 Hartford, Northwich
 Independent day educational Grammar School with Prep Dept. 750 pupils
 Required for January 1987 a well qualified graduate teacher to be Head of Science. Salary £10,000-11,000. Further details and application form from the Headmaster, The Grange School, Hartford, Northwich. (12352)

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CHARTERHOUSE

Applications for the post of

DIRECTOR of MUSIC

in September 1987 should be addressed to:

The Headmaster, Charterhouse, Godalming, Surrey GU7 2DJ



St Bede's is an Independent Catholic Co-educational Grammar School (850 on roll; 240 in Sixth Form). Required for January 1987

HEAD OF RELIGIOUS EDUCATION (Scale 4)

The successful candidate will co-ordinate the activities of the Religious Education Department and will also be expected to make a significant contribution to the religious life of this Catholic Grammar School.
PHYSICS (Salary according to experience)
 To teach the subject throughout the school up to Oxford level in a department which has 70 'A' level students. A practising Catholic is preferred.
SPANISH (Salary according to experience)
 An enthusiastic and experienced teacher is required to continue the development of the teaching of Spanish, which was introduced into the school in 1985. The successful candidate will ideally, although not essential, be able to offer a second language. A practising Catholic is preferred.
 Full particulars are available from the Headmaster, to whom a letter of application, full C.V. and the names of three referees must be supplied by 20 September.

ST. BEDE'S COLLEGE ALEXANDRA PARK MANCHESTER M16 8HX

Telephone: 061-226 3323

INDEPENDENT EDUCATION

SURREY
THE GROVE SCHOOL
 Guildford, Surrey GU1 1AA
 Required for January 1987 a well qualified graduate teacher to be Head of English. Salary £10,000-11,000. Further details and application form from the Headmaster, The Grove School, Guildford, Surrey GU1 1AA. (12310) 123418

LONDON N15
MICHAM SCHOOL
 84 Ladbroke Road, London N15 1AA
 Required for January 1987 a well qualified graduate teacher to be Head of English. Salary £10,000-11,000. Further details and application form from the Headmaster, Micham School, 84 Ladbroke Road, London N15 1AA. (12348)

Worcestershire

MAULVERN GIRLS' COLLEGE
 Malvern, Worcestershire WR14 3BA
 Required for January 1987 a well qualified graduate teacher to be Head of English. Salary £10,000-11,000. Further details and application form from the Headmaster, Maulvern Girls' College, Malvern, Worcestershire WR14 3BA. (12360)

LONDON N15
MICHAM SCHOOL
 84 Ladbroke Road, London N15 1AA
 Required for January 1987 a well qualified graduate teacher to be Head of English. Salary £10,000-11,000. Further details and application form from the Headmaster, Micham School, 84 Ladbroke Road, London N15 1AA. (12348)

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Gateshead

GATESHEAD BOYS SCHOOL
 Gateshead, Co. Durham NE8 4JL
 Required for January 1987 a well qualified graduate teacher to be Head of English. Salary £10,000-11,000. Further details and application form from the Headmaster, Gateshead Boys School, Gateshead, Co. Durham NE8 4JL. (12361)

BUENOS AIRES
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INDEPENDENT EDUCATION

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MICHAM SCHOOL
 84 Ladbroke Road, London N15 1AA
 Required for January 1987 a well qualified graduate teacher to be Head of English. Salary £10,000-11,000. Further details and application form from the Headmaster, Micham School, 84 Ladbroke Road, London N15 1AA. (12348)

LONDON WC3
BEIS SHAMAT GRAMMAR SCHOOL
 14 Heathland Road, London WC3 1JL
 Required for January 1987 a well qualified graduate teacher to be Head of English. Salary £10,000-11,000. Further details and application form from the Headmaster, Beis Shamat Grammar School, 14 Heathland Road, London WC3 1JL. (12359)

SOMERSET
THE GRANGE SCHOOL
 Hartford, Northwich
 Independent day educational Grammar School with Prep Dept. 750 pupils
 Required for January 1987 a well qualified graduate teacher to be Head of English. Salary £10,000-11,000. Further details and application form from the Headmaster, The Grange School, Hartford, Northwich. (12352)

Gateshead

GATESHEAD BOYS SCHOOL
 Gateshead, Co. Durham NE8 4JL
 Required for January 1987 a well qualified graduate teacher to be Head of English. Salary £10,000-11,000. Further details and application form from the Headmaster, Gateshead Boys School, Gateshead, Co. Durham NE8 4JL. (12361)

BUENOS AIRES
 Looking for adventure? Seeking a challenge? Want to see the world? See St. George's College, Buenos Aires advert in Overseas Section. (12346) 123494

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INDEPENDENT EDUCATION

SURREY
THE GROVE SCHOOL
 Guildford, Surrey GU1 1AA
 Required for January 1987 a well qualified graduate teacher to be Head of English. Salary £10,000-11,000. Further details and application form from the Headmaster, The Grove School, Guildford, Surrey GU1 1AA. (12310) 123418

LONDON N15
MICHAM SCHOOL
 84 Ladbroke Road, London N15 1AA
 Required for January 1987 a well qualified graduate teacher to be Head of English. Salary £10,000-11,000. Further details and application form from the Headmaster, Micham School, 84 Ladbroke Road, London N15 1AA. (12348)

Worcestershire

MAULVERN GIRLS' COLLEGE
 Malvern, Worcestershire WR14 3BA
 Required for January 1987 a well qualified graduate teacher to be Head of English. Salary £10,000-11,000. Further details and application form from the Headmaster, Maulvern Girls' College, Malvern, Worcestershire WR14 3BA. (12360)

LONDON N15
MICHAM SCHOOL
 84 Ladbroke Road, London N15 1AA
 Required for January 1987 a well qualified graduate teacher to be Head of English. Salary £10,000-11,000. Further details and application form from the Headmaster, Micham School, 84 Ladbroke Road, London N15 1AA. (12348)

LONDON WC3
BEIS SHAMAT GRAMMAR SCHOOL
 14 Heathland Road, London WC3 1JL
 Required for January 1987 a well qualified graduate teacher to be Head of English. Salary £10,000-11,000. Further details and application form from the Headmaster, Beis Shamat Grammar School, 14 Heathland Road, London WC3 1JL. (12359)

PREPARATORY SCHOOLS

Modern Languages

Other Assistants

CHESHIRE

TERRA NOVA SCHOOL
Jodrell Bank, Cheshire, near Macclesfield.
Cheshire CW4 4BT.
Teacher of French required for January 1987 to teach in a small school. Must be qualified in French and have experience in teaching. Salary in accordance with the Cheshire Scale. Apply with C.V. and two references to the Headmaster, Jodrell Bank, Cheshire CW4 4BT. (12475)

SHREWSBURY

SHROPSHIRE PACKWOOD
Ruxton XI Town, Shrewsbury SY4 1HX.
Qualified teacher for French in 1987. To teach in a small school. Must be qualified in French and have experience in teaching. Salary in accordance with the Shropshire Scale. Apply with C.V. and two references to the Headmaster, Ruxton XI Town, Shrewsbury SY4 1HX. (12475)

Physical Education

Heads of Department

SOMERSET

TEACHER OF P.E.
Required for January 1987 to teach in a small school. Must be qualified in P.E. and have experience in teaching. Salary in accordance with the Somerset Scale. Apply with C.V. and two references to the Headmaster, Jodrell Bank, Cheshire CW4 4BT. (12475)

PRIOR'S COURT PREPARATORY SCHOOL

Chieveley, Newbury, Berkshire
(IAPS, Methodist Co-Ed Day and Boarding School)
(150 pupils - 100 boarders)

Junior School to Kingswood, Bath

TWO POSTS

POST 1: HEAD OF PRE-PREP DEPARTMENT

POST 2: PRE-PREP TEACHER

In April 1987 Prior's Court is to open a two class Pre-Prep School for thirty 4-6 year old day pupils. Two posts are offered, one for an experienced, lively, infant teacher who will head this new Department, and develop it from scratch; the other for a class teacher. House Duties/Accommodation could be available.
Send a letter of application with the names, addresses and telephone numbers of two referees to Mr P. B. High, Headmaster, Prior's Court School, Chieveley, Newbury, Berkshire RG16 8XW.
Closing date 26th September.

EDUCATION DEPARTMENT

PRINCIPAL

WEST SUSSEX COLLEGE OF AGRICULTURE AND HORTICULTURE

Salary: £17,184 - £19,062

The College is situated in rural West Sussex between Pulborough and Billingshurst. The appointment will take effect from the 1st January, 1987.

Application form and further details available from the Director of Education, County Hall, Chichester, West Sussex, PO19 1HF (large s.a.e. please) or by telephoning Mrs. C. Vigor on Chichester 777763.

Closing date 26th September, 1986.

west sussex

SOMERSET

ALL HALLOWS SCHOOL
Cranmore Hall, East Cranmore, Somerset BA4 4BP.
Required in January 1987 to teach in a small school. Must be qualified in French and have experience in teaching. Salary in accordance with the Somerset Scale. Apply with C.V. and two references to the Headmaster, Cranmore Hall, East Cranmore, Somerset BA4 4BP. (12475)

Science

Other Assistants

PORTUGAL

SCIENCE SPECIALIST
Required by OPORO BRITISH SCHOOL, Portugal.
See Science advertisement in Overseas section for details. (12475)

Other than by Subject

Classification

Other Assistants

HAMPSHIRE

Qualified Teacher
Required in January for the Preparatory Department (boys 5-8). Burnham plus PGB Allowance.
Apply in writing with full details, C.V. and references to Mrs E. Sanger-Davies, Principal, Burnham School, Burnham, Hampshire, RG23 7EJ. (12475)

KENT

CRANMORE SCHOOL
Great Chart, Ashford, Kent TN25 7JH.
Required for January 1987 to teach in a small school. Must be qualified in French and have experience in teaching. Salary in accordance with the Kent Scale. Apply with C.V. and two references to the Headmaster, Cranmore School, Great Chart, Ashford, Kent TN25 7JH. (12475)

LONDON SW20

URSULINE CONVENT
PREPARATORY SCHOOL
Cranmore Hall, East Cranmore, Somerset BA4 4BP.
Required in January 1987 to teach in a small school. Must be qualified in French and have experience in teaching. Salary in accordance with the Somerset Scale. Apply with C.V. and two references to the Headmaster, Cranmore Hall, East Cranmore, Somerset BA4 4BP. (12475)

LONDON W10

SPANISH BILINGUAL
SCHOOL
17 Portobello Road, London W10 4JH.
Required IMMEDIATELY qualified infant teacher. Knowledge of Spanish helpful but not necessary. Salary in accordance with the London Scale. Apply with C.V. and two references to the Headmaster, 17 Portobello Road, London W10 4JH. (12475)

MIDDLESEX

HOUSLOW COLLEGE
Qualified or experienced teacher required for class of 8-9 yr. olds in the Prep. Department. Temp. post for one term.
Apply, giving full details and the names of two referees to the Headmaster, Houslow College, Houslow, Middlesex, TW15 6PN. (12475)

PORTSMOUTH

PORTSMOUTH
GRAMMAR SCHOOL
(HMC Independent Day School)
Required for January 1987 to teach in a small school. Must be qualified in French and have experience in teaching. Salary in accordance with the Portsmouth Scale. Apply with C.V. and two references to the Headmaster, Portsmouth Grammar School, Portsmouth, Hampshire, PO1 2LN. (12475)

LEICESTERSHIRE

Qualified Teacher
Required in January for the Preparatory Department (boys 5-8). Burnham plus PGB Allowance.
Apply in writing with full details, C.V. and references to Mrs E. Sanger-Davies, Principal, Burnham School, Burnham, Hampshire, RG23 7EJ. (12475)

SURREY

CRANMORE SCHOOL
Great Chart, Ashford, Kent TN25 7JH.
Required for January 1987 to teach in a small school. Must be qualified in French and have experience in teaching. Salary in accordance with the Kent Scale. Apply with C.V. and two references to the Headmaster, Cranmore School, Great Chart, Ashford, Kent TN25 7JH. (12475)

WORCESTER

THE ALICE OTLEY SCHOOL
Worcester WR1 1HW.
Required for January 1987 to teach in a small school. Must be qualified in French and have experience in teaching. Salary in accordance with the Worcester Scale. Apply with C.V. and two references to the Headmaster, Alice Otley School, Worcester, WR1 1HW. (12475)

YORKSHIRE

GATEWAYS PREPARATORY SCHOOL
Leeds LS17 5LE.
Required for January 1987 to teach in a small school. Must be qualified in French and have experience in teaching. Salary in accordance with the Yorkshire Scale. Apply with C.V. and two references to the Headmaster, Gateways Preparatory School, Leeds, LS17 5LE. (12475)

Colleges of Further Education

Directors, Principals and Vice Principals

CHESHIRE

CHESHIRE COLLEGE OF AGRICULTURE
Rugeley, Cheshire CW8 5JF.
Principal.
Required for January 1987 to teach in a small school. Must be qualified in French and have experience in teaching. Salary in accordance with the Cheshire Scale. Apply with C.V. and two references to the Headmaster, Rugeley, Cheshire CW8 5JF. (12475)

SECTOR HEADS

DIVISION OF TECHNOLOGY

Salary Scale £14,136 - £15,933 per annum.
Mechanical/Production Engineering (Ref. 1)
Electrical/Electronic Engineering (Ref. 2)
Further details and application forms available from the Principal, Salford College of Technology, Salford, M6 6PU. (12475)

HEADS OF STUDY

Salary Scale £12,615 - £14,820 per annum.
Science (Ref. 3)
Humanities/Modern Languages (Ref. 4)
Mechanical/Production Engineering (Ref. 5)
Electrical/Electronic Engineering (Ref. 6)
Business and Management Studies (Ref. 7)
Further details and application forms available from the Principal, Salford College of Technology, Salford, M6 6PU. (12475)

LECTURERS GRADE 1

Salary Scale £6,843 - £11,865 per annum.
Special Needs - working with ESN(M) school leaves and 19+ age group. (Ref. 8)
Painting and Decorating (Ref. 9)
Electronic Engineering (Ref. 10)
Further details and application forms available from the Principal, Salford College of Technology, Salford, M6 6PU. (12475)

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Qualified Teacher
Required in January for the Preparatory Department (boys 5-8). Burnham plus PGB Allowance.
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Apply in writing with full details, C.V. and references to Mrs E. Sanger-Davies, Principal, Burnham School, Burnham, Hampshire, RG23 7EJ. (12475)

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Qualified Teacher
Required in January for the Preparatory Department (boys 5-8). Burnham plus PGB Allowance.
Apply in writing with full details, C.V. and references to Mrs E. Sanger-Davies, Principal, Burnham School, Burnham, Hampshire, RG23 7EJ. (12475)

Norfolk County Council

Norfolk College of Arts and Technology
Tennyson Avenue, King's Lynn, Norfolk PE30 2JW.
Tel: King's Lynn (0553) 761144
Principal: Clifford H. Dixon

SECTOR HEADS

DIVISION OF TECHNOLOGY

Salary Scale £14,136 - £15,933 per annum.
Mechanical/Production Engineering (Ref. 1)
Electrical/Electronic Engineering (Ref. 2)
Further details and application forms available from the Principal, Salford College of Technology, Salford, M6 6PU. (12475)

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COLLEGES OF FURTHER EDUCATION

SOMERSET

CRANMORE SCHOOL
Great Chart, Ashford, Kent TN25 7JH.
Required for January 1987 to teach in a small school. Must be qualified in French and have experience in teaching. Salary in accordance with the Kent Scale. Apply with C.V. and two references to the Headmaster, Cranmore School, Great Chart, Ashford, Kent TN25 7JH. (12475)

Other Appointments

AVON COUNTY

CRANMORE SCHOOL
Great Chart, Ashford, Kent TN25 7JH.
Required for January 1987 to teach in a small school. Must be qualified in French and have experience in teaching. Salary in accordance with the Kent Scale. Apply with C.V. and two references to the Headmaster, Cranmore School, Great Chart, Ashford, Kent TN25 7JH. (12475)

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ENNER

CRANMORE SCHOOL
Great Chart, Ashford, Kent TN25 7JH.
Required for January 1987 to teach in a small school. Must be qualified in French and have experience in teaching. Salary in accordance with the Kent Scale. Apply with C.V. and two references to the Headmaster, Cranmore School, Great Chart, Ashford, Kent TN25 7JH. (12475)

Other Appointments

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Lancashire County Council

LANCASTER & MORECAMBE COLLEGE
MORECAMBE ROAD, LANCASTER
1st January 1987
PRINCIPAL - GROUP 5
Forms/further details from/to the District Education Officer, High Street House, High Street, Lancaster. (SAE please).
Closing date for this post only:
30th September 1986.

Re-advertisement

BURNLEY COLLEGE
SHOREY BANK, OFF ORMEROD ROAD, BURNLEY
As soon as possible
TWO POSTS:
1. HEAD OF SCHOOL - ARTS & DESIGN
Grade 3 - £15,456 - £17,263.
2. ASSOCIATE LECTURER IN FASHION
£23,794 - £28,748 (fractional proportion of Lecturer 1 salary). Degree or BTEC Higher qualifications required. Relevant industrial experience essential.
Forms/further details from/to the Principal at the College. (SAE please).

LEYLAND RUNSHAW TERTIARY COLLEGE

LANGDALE ROAD, LEYLAND.
1st January 1987
SIX POSTS:
1. HEAD OF DEPARTMENT - GRADE IV
Department of Catering, Hairdressing and Health Care. Industrial & F.E. experience in one of the three vocational areas is required.
2. SENIOR LECTURER (S.L. GRADE)
ADULT EDUCATION - TUTOR ORGANISER
3. LECTURER GRADE I (THREE POSTS):
PHYSICS & ELECTRONICS;
SOCIOLOGY;
ART.
4. LECTURER GRADE I
BASED AT H.M. PRISON, WYMOTT.
Adult/Remedial Education. Wide experience in a variety of subjects and interests an advantage.
Forms/further details regarding these six posts from/to the Principal at the College. (SAE please).

ACCRINGTON AND ROSENDALE COLLEGE

SANDY LANE, ACCRINGTON (GROUP 6)
1st January 1987, or as soon as possible.
SECTION LEADER - SENIOR LECTURER GRADE
CATERING/DEPUTY HEAD OF FOOD AND FASHION DEPARTMENT.
Forms/further details from/to District Education Officer, Education Offices, Cannon Street, Accrington. (05391)

ACCRINGTON AND ROSENDALE COLLEGE

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1st January 1987, or as soon as possible.
SECTION LEADER - SENIOR LECTURER GRADE
CATERING/DEPUTY HEAD OF FOOD AND FASHION DEPARTMENT.
Forms/further details from/to District Education Officer, Education Offices, Cannon Street, Accrington. (05391)

ACCRINGTON AND ROSENDALE COLLEGE

SANDY LANE, ACCRINGTON (GROUP 6)

Polytechnics

LONDON SE18
THAMES POLYTECHNIC
Incorporating Avery Hill
College
SCHOOL OF SOCIAL AND
BEHAVIOURAL
EDUCATION
LECTURER IN PRIMARY
SCIENCE
Required to join the Science
Education team, to contribute
to the development of the
primary science course and to
provide support to the primary
science teachers. The successful
candidate will have a degree in
Primary Science or a related
subject and will have experience
in primary science education.
Salary: £14,766 inclusive.
Further particulars and
application form from the
Polytechnic, Wellesbourne
Street, London SE18 6PP, to
be returned by 30 September
1986.
Thames Polytechnic is an
equal opportunities employer.
(13587) 260026

LONDON SE18
THAMES POLYTECHNIC
Incorporating Avery Hill
College
SCHOOL OF ARTS AND
DESIGN
LECTURER IN CRAFT
DESIGN
Required from January 1987
to teach and supervise
students on the Craft Design
course. The successful
candidate will have a degree
in Craft Design or a related
subject and will have experience
in teaching and supervising
students on a craft design
course. The successful
candidate will also be
responsible for the design
and development of the
course. Salary: £14,766
inclusive. Further
particulars and
application form from the
Polytechnic, Wellesbourne
Street, London SE18 6PP, to
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Thames Polytechnic is an
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(13587) 260026

LIVERPOOL
LIVERPOOL
POLYTECHNIC
DEPARTMENT OF
EDUCATION
LECTURER/SENIOR
LECTURER IN CRAFT,
DESIGN AND
TECHNOLOGY
L16 9JL £8,595 - £15,873
(Appointment to take
effect from 1.1.87)
Applicants for the post
must have a degree or
equivalent in a relevant
subject, and a minimum of
three years' experience in
teaching and supervising
students on a craft design
course. The successful
candidate will be responsible
for the design and
development of the course.
For further particulars
and an application form
contact the Personnel
Officer, Liverpool
Polytechnic, 15
Pierhead, Liverpool L16
9JL, Ext. 251/2519. To
be returned by 30
September 1986.
Liverpool Polytechnic is
an equal opportunities
employer and welcomes
applications from people of
all races, ages, sexes or
disabilities.
(13587) 260026

Moray House College of Education TECHNOLOGICAL EDUCATION

The College has received MSC funding to support the appointment to the unexpired vacancies for a period of 1-year to September 1987. The post is designed to support the introduction of the B.Ed (Technology) degree and honours degree courses to be offered jointly by Moray House College of Education and Napier College of Commerce and Technology.

(1) Lecturing/Supervision Development: The person appointed to this post will be expected to make a major contribution to the development of the new courses and will undertake lecturing duties on existing courses. Applicants should be registered teachers who have QTC registration, a degree in Electronics/Computing and have some experience in CAD/CNC, technological education and curriculum work. Salary will be on the Lecturers' Scale at £14,718 (under review). It is expected that the successful candidate will be seconded by his/her present employing authority.

(2) Technology Technician: The successful applicant will provide technical support in the practical aspects of the project. This will include a contribution to the existing work of the Department of Technical Education. Candidates should be qualified in the area of electronic/computer applications and have experience in the area of electronic/computer applications. The salary will be determined in the light of qualifications/experience up to a limit of £9,500. Secondment arrangements may apply.

Further particulars and forms of application may be obtained from the College Secretary, Moray House College of Education, 100 George Street, Edinburgh EH2 4JH, or in whom completed applications should be returned not later than Wednesday 24th September 1986.

University Appointments

BIRMINGHAM

UNIVERSITY OF
BIRMINGHAM
DEPARTMENT OF
SPECIAL EDUCATION
RESEARCH FELLOW IN
MICRO-COMPUTER
SYSTEMS
IMPLEMENTATION AND
COMPUTER ASSISTED
LEARNING

Applications are invited for this post, funded by the Royal National Institute for the Blind, to carry out research in the area of micro-computer systems implementation and computer assisted learning. The post holder will be responsible for the design and development of a course for visually handicapped children and adults to use a micro-computer. The successful candidate will have a degree in a relevant subject and will have experience in the use of micro-computers. The salary will be on the Research Fellow's Scale at £14,718 (under review). It is expected that the successful candidate will be seconded by his/her present employing authority.

Further particulars from the Principal, University of Birmingham, P.O. Box 363, Birmingham B15 2TT, to whom applications (with a covering letter) should be sent by 30 September 1986.
(An Equal Opportunities Employer) (13456) 260000

Fellowships, Studentships and Research Awards

EDINBURGH

DUNFERMLINE COLLEGE
OF PHYSICAL
EDUCATION
POSTGRADUATE
STUDENTSHIP

An investigation into how pupils perceive and react to stressful situations in school.

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Further details are available from:
The Vice Principal's Secretary, Dunfermline College of Physical Education, 100 George Street, Dunfermline EH4 5JD.

Applications from suitably qualified and experienced graduates with QTC registration and a degree in Physical Education should be forwarded to the above address by 30th September 1986.
(13414) 300000

OXFORD

TRINITY COLLEGE
Oxford
Trinity College invites applications for THREE FELLOWSHIP POSITIONS in the Department of Education. The purpose of the Fellowship is to enable a teacher to have some intellectual and administrative responsibility in the Department of Education.

Further particulars from the College Secretary, Trinity College, Oxford OX1 2SH.
Applications in by 18th October 1986. 300000

Colleges of Higher Education

HEREFORD AND WORCESTER COUNTY COUNCIL

FULL-TIME TEMPORARY
LECTURERS
SPECIAL TERM 1987

Worcester College of Higher Education, Worcester
Completed applications to the Principal, Worcester College of Higher Education, Worcester, to whom applications (with a covering letter) should be sent by 30 September 1986.
(An Equal Opportunities Employer) (13456) 260000

EDUCATION STUDIES

Post 1: Social Psychology (B.A. Hons. 2:1).
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Further details are available from:
The Vice Principal's Secretary, Dunfermline College of Physical Education, 100 George Street, Dunfermline EH4 5JD.

Applications from suitably qualified and experienced graduates with QTC registration and a degree in Physical Education should be forwarded to the above address by 30th September 1986.
(13414) 300000

PRIMARY TEACHER EDUCATION Salary £9,186 - £16,155

Two posts in Primary Education (Lecturer/Supervisor) will be available from January 1st 1987. Particular areas of expertise required are ENVIRONMENTAL SCIENCE which will include work in Environmental Science, Geography and Biology; and PRIMARY MOVEMENT/PE, preferably with MJSIG.

Essential requirements for both posts are substantial primary teaching experience, demonstrable understanding of teaching in the primary and commitment to equal opportunities; and relevant advanced qualifications.

The Polytechnic will also be accepting, through these appointments, applications from suitably qualified and experienced graduates with QTC registration and a degree in Primary Education. The successful candidate will be expected to teach and supervise students on the Primary Education course. The salary will be on the Primary Teacher Education Scale at £9,186 (under review). It is expected that the successful candidate will be seconded by his/her present employing authority.

Application forms and further details are available from the Personnel Department, South Bank Polytechnic, Borough Road, London SE1 0JN. Telephone 01-828 3512 (newspaper service 01-828 3512).

Closing date for applications: 30th September 1986.
(An Equal Opportunities Employer) (13456) 260000

KENT

CANTERBURY CHRIST
CHURCH COLLEGE
HIGHER EDUCATION
To contribute to the development of the college and to provide support to the college. The successful candidate will have a degree in a relevant subject and will have experience in the use of micro-computers. The salary will be on the Research Fellow's Scale at £14,718 (under review). It is expected that the successful candidate will be seconded by his/her present employing authority.

LONDON

UNIVERSITY OF LONDON
GOLDSMITH'S COLLEGE
SCHOOL OF EDUCATION
LECTURER IN EDUCATION
DEPARTMENT

Completed applications to the Principal, University of London Goldsmith's College, London SE14 6NW, to whom applications (with a covering letter) should be sent by 30 September 1986.
(An Equal Opportunities Employer) (13456) 260000

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Colleges of Higher Education

HEREFORD AND WORCESTER COUNTY COUNCIL

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Post 89: Educational Physical Education Education (B.A. Hons. 2:1).
Post 90: Educational Health Education Education (B.A. Hons. 2:1).
Post 91: Educational Citizenship Education Education (B.A. Hons. 2:1).
Post 92: Educational Religious Education Education (B.A. Hons. 2:1).
Post 93: Educational Moral Education Education (B.A. Hons. 2:1).
Post 94: Educational Character Education Education (B.A. Hons. 2:1).
Post 95: Educational Values Education Education (B.A. Hons. 2:1).
Post 96: Educational Life Education Education (B.A. Hons. 2:1).
Post 97: Educational Career Education Education (B.A. Hons. 2:1).
Post 98: Educational Guidance Education Education (B.A. Hons. 2:1).
Post 99: Educational Counselling Education Education (B.A. Hons. 2:1).
Post 100: Educational Special Education Education (B.A. Hons. 2:1).

EDINBURGH

DUNFERMLINE COLLEGE
OF PHYSICAL
EDUCATION
POSTGRADUATE
STUDENTSHIP

An investigation into how pupils perceive and react to stressful situations in school.

Applications are invited for the above three year studentship which is funded by the Dunfermline College of Physical Education. The successful candidate will be expected to undertake research in the area of physical education and to produce a thesis for submission to the University of Edinburgh. The successful candidate will also be expected to teach and supervise students on the Physical Education course. The salary will be on the Postgraduate Studentship Scale at £14,718 (under review). It is expected that the successful candidate will be seconded by his/her present employing authority.

Further details are available from:
The Vice Principal's Secretary, Dunfermline College of Physical Education, 100 George Street, Dunfermline EH4 5JD.

Applications from suitably qualified and experienced graduates with QTC registration and a degree in Physical Education should be forwarded to the above address by 30th September 1986.
(13414) 300000

LONDON

UNIVERSITY OF LONDON
GOLDSMITH'S COLLEGE
SCHOOL OF EDUCATION
LECTURER IN EDUCATION
DEPARTMENT

**Firms to be returned by
26th September, 1986,
Bolithull, an equal
opportunities employer.**

...up where
we belong

PER

Teachers resident outside of the United Kingdom should make all enquiries direct to the Department of Education, Private Bag, Wellington, New Zealand and should note that financial assistance may not necessarily be available to them.

Application forms and further information from and returnable to: Chief Education Officer, P.O. Box 19, Education Department, Tatton Road, Sale, Manchester M33 1YR
Tel: 061-8722101 Ext. 3116. Closing date 26th September 1986.

PR1 8RJ. (Please enclose SAE and quote Ref. No. A11351/PJ).

(00863)

LONDON BOROUGH OF

An Equal Opportunity Employer

Enfield

Application forms and further particulars are available from Director of Educational Services, Lynton House, 265-269 High Road, Ilford, Essex IG1 1NN to be returned by 26th September, 1986.

**Hertfordshire
County Council**
An Equal Opportunity Employer

Firms to be returned by
26th September, 1986,
Bolitho, an equal
opportunities employer.

Wiltshire Education Department

ASSISTANT EDUCATION OFFICER

(PO 5-8: Salary £12,613 - £13,662 p.a.)

Ref. E88.398

Assistant Education Officer (Development & Planning)

This post is within a newly formed Unit which will undertake major reviews of the Education Service. It will involve a wide range of duties including the preparation of development proposals and building briefs.

Ref. E88.399

Assistant Education Officer (Schools)

This post is within the Area Team covering schools in the South of the County. It deals with a wide range of matters concerning the provision of schools, their administration and effectiveness.

Both vacancies arise from the promotion of the present postholders. The posts offer a wide variety of work in educational administration and applications will be welcomed from those seeking a first post in a LEA as well as from those with previous LEA experience. Applicants must have Honours Degree and teaching experience or an equivalent background in education. Both posts are based at County Hall, Trowbridge.

The pay award date for these posts is 1st July 1986, but a settlement has not yet been reached.

Application forms and further details from the Chief Education Officer (STN), County Hall, Trowbridge, Wiltshire BA14 8JB (tel: Trowbridge (02214) 3641 ext. 2434), quoting the appropriate reference number. Closing date 1 October 1986.

ADMINISTRATION - LEA continued

HAMPSHIRE EDUCATION COMMITTEE CAREERS SERVICE CAREERS ADVISER (SCHOOLS) Scale 5/6 - £7,920 - £9,381 Post No. CE1/1281 (Havant), CE1/1282 (Waterlooville) JOIN A PROGRESSIVE CAREERS SERVICE

Applications are invited from experienced or newly qualified Careers Advisers for vacancies in our Havant and Waterlooville District Careers Offices.

Those appointed will work with pupils covering the whole ability range up to and including the fifth form and will have responsibility for a caseload of T16-V16 clients. A sector of the unemployment register and a geographical area of employer contact.

We can offer a well managed programme of training and support during the probationary year for newly qualified Careers Advisers. Starting salary for postholders is £6,900 with progression to £7,920 on scale 5/6 after one year.

Careers Advisers who have completed their probationary year will be paid according to experience on Scale 5/6.

For further details and application form please write to the Administrative Assistant (South East), The Divisional Careers Office, 2nd Floor, Portsmouth PO1 2JG. Tel: 0705 234233 quoting reference 6534.

Closing date Monday 29th September 1986. (97546) 480000

Staffordshire Technology Education Programme Required for 1st January, 1987

PROGRAMME DIRECTOR (Headteachers Group 7/8)

SENIOR ADVISORY TEACHERS (Senior Teachers Scale) - 2 Posts

Staffordshire is initiating a major programme to develop the technological dimension of education in all its schools, both primary and secondary. The programme will be based upon the County Technology Centre, supplemented by mobile technology units, and will be effected through a team of advisory teachers. The Programme Director, as Head of the Technology Centre, will have major responsibility for the development and delivery of a phased programme of professional and curriculum development, resource allocation, and adaptation of the learning environment in schools.

The Director, who will have proven experience in aspects of technological education in the primary and/or secondary sectors, will be responsible to, and work in conjunction with, the County Schools Inspectorate.

The Senior Advisory Teachers will assist the Programme Director, and will have particular responsibilities for organising the work of teams of teachers, some on permanent appointment and some on secondment, in curriculum development and associated INSET.

One post will carry specific responsibility for the Technology for All aspects of the programme, and will require experience and expertise in technological working across the curriculum, including work in the primary age range.

One post will carry specific responsibility for the Expert Technology aspects of the programme. The person appointed will have proven expertise in a major field of technology (i.e. micro-electronics, bio-technology, control technology).

All these posts are permanent, will be based in Stafford, and will qualify for Essential Car User Allowances.

Application forms and further particulars are available from the Chief Education Officer, Staffing Section, County Education Offices, Tipping Street, Stafford, ST16 2DH (a.s.e. please). Closing date, Monday 29th September 1986.

Trade Union membership encouraged.

Staffordshire County Council

Tayside Regional Council Education Department

SENIOR CAREERS OFFICER (Information)

£10,639 - £11,619 (Ref. 248/86)

Location: Careers Service Headquarters, Dundee.

The Senior Careers Officer (Information) will support the work of the Careers Service through the provision of an information service and a resource base for the production and dissemination of careers information and associated materials. The Officer will also advise and support schools and colleges on the maintenance and development of their careers libraries. In addition, the successful applicant will be expected to be able to advise on the use generally of new technology.

Applications are invited from experienced Careers Officers holding the Diploma in Careers Guidance.

A job application is available. Closing date for receipt of applications is Friday 26th September 1986.

Unless otherwise specified, application forms for the above post are available from and returnable to the Director of Manpower Services, 50 Commercial Street, Dundee DD1 2AF - telephone Dundee 23261, Ext. 3651. Answering device 8.45 am - 5.00 pm Monday to Friday.

Removal and relocation expenses are available in certain circumstances for staff appointed to this post.

Candidates of either sex may apply.

TAYSIDE REGIONAL COUNCIL IS AN EQUAL OPPORTUNITIES EMPLOYER

Application forms and further particulars are available from the Chief Education Officer, Education Department, P.O. Box 61, County Hall, Preston (SAE please). Please quote Ref: C0294/1/P.J.

PREVIOUS APPLICANTS WILL AUTOMATICALLY BE RE-CONSIDERED.

Closing date: 30th September, 1986. (00200)

WEST GLAMORGAN County Council

Education Department Applications are invited for the following posts to commence in January, 1987 or earlier where possible.

COUNTY ADVISERS

(Two Posts) with special responsibility for:
(i) Social Education (Post Ref: 2/19/86)
(ii) Science (Post Ref: 3/19/86)

Applications are invited for these important posts from teachers with substantial experience of successful teaching. Experience on a secondary level is essential, but experience of working in the above aspects of education such as primary or further education will be an advantage.

Salary: Southbury-Burnham Headteacher Group 6.

Application forms and further particulars can be obtained from the Director of Education, Personnel Section, County Hall, Swansea, SA1 1SN on receipt of a large stamped addressed envelope, quoting the post reference.

The closing date for the receipt of completed application forms is Thursday, 25th September, 1986.

(00200)

Lancashire County Council

AN EQUAL OPPORTUNITY EMPLOYER Education Department, County Hall, Preston ADMINISTRATIVE ASSISTANT (SCHOOLS BRANCH)

Salary Scale: Principal Officer Range 43-46
£14,746 - £16,831 p.a. (Pay award pending)

This vacancy arises from the promotion of the previous postholder within the Authority. It offers an excellent opportunity for a graduate with successful school teaching experience at a senior level to enter educational administration or for a serving education officer to broaden his/her experience. Lancashire is the fourth largest County Education Authority in the country and the post offers considerable scope for initiative and innovation within a demanding service.

The successful applicant will undertake a range of specific duties in the Schools Branch but be expected to work flexibly to gain broad experience. The postholder will similarly be expected to take advantage of a variety of training and development opportunities.

Car allowances and car loan/leasing schemes are in operation. Disturbance and removal allowances are also available in approved cases. Further details are available on request.

Application forms and further particulars are available from the Chief Education Officer, Education Department, P.O. Box 61, County Hall, Preston (SAE please). Please quote Ref: C0294/1/P.J.

PREVIOUS APPLICANTS WILL AUTOMATICALLY BE RE-CONSIDERED.

Closing date: 30th September, 1986. (00200)

Assistant Education Officer (Special Education)

(Based at Portman House, Bournemouth)
Salary P06: £12,885 - £14,025

Applications are invited for the above post, which is to be filled from 1st January 1987.

We are looking for someone with a strong academic background who has taught for some years, who has reached a position of responsibility in a school or college and who now wishes to move into administration. The successful candidate would be expected to stay in the post for three to four years and then seek promotion.

An interest in special education is desirable, but experience in special schools is not essential.

Removal expenses will be paid in approved cases.

Application forms, returnable by 28th September 1986, and further details from County Education Officer (HOD), County Hall, Dorchester, Dorset, DT1 1JL (Please enclose a.s.e.) a.s.e. Please quote Post C0260X.

(00200)

ADMINISTRATION - LEA continued

WELSH JOINT EDUCATION COMMITTEE CURRICULUM BASED PRINCIPAL OFFICER, Scale 4 Salary: £14,025 - £15,111 (pay award pending) One year appointment, 1st January 1987 to 31st December 1987 (re-advertisement) Applications are invited for the post of Project Officer to the Wales Curriculum Base. The duties of the Project Officer reflect the aims of the Wales Curriculum Base, which are concerned with curriculum and staff development and network/information services particularly in areas such as pre-vocational education. This is a temporary appointment and secondment arrangements would be particularly welcome.

Further details and application forms are available from the Secretary, Welsh Joint Education Committee, 4th Floor, Arber Road, Cardiff, South Glam. CF1 3AT. Tel: (0353) 26111. Closing date: 25th September 1986. (12565) 480000

Application forms and further details are available from the Chief Education Officer (Education Support Grant), January 1987 to 31st August 1988.

Reimbursement of removal expenses in approved cases. Application forms and further details are available from the Chief Education Officer (Education Support Grant), January 1987 to 31st August 1988.

Applicants should be talented, have experience of using I.T. as an aid to learning and teaching and be prepared to undertake a salary to promote the development of the new technology in first, middle, secondary and special schools.

Further details and application forms from Chief Education Officer, Education Department, County Hall, Trowbridge, Wiltshire BA14 8JB (tel: Trowbridge (02214) 3641 ext. 2434), quoting the appropriate reference number. Closing date 1 October 1986.

Applicants should possess a degree and have teaching experience.

Salary: PO E/F £11,850 - £14,025 (+£213 outer fringe allowance) (1st July 1986 pay award pending).

Further particulars and application form may be obtained from the County Education Officer (Ref: DMS/79), County Hall, Hertford, SG13 8DF, telephone Hertford 556821, to whom completed applications should be returned by 28th September 1986. (00200)

Initially, the successful candidate will cover the area of sites and buildings but there will be opportunities to gain experience of other aspects of educational administration.

Applicants should possess a degree and have teaching experience.

Salary: PO E/F £11,850 - £14,025 (+£213 outer fringe allowance) (1st July 1986 pay award pending).

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ADMINISTRATION - LEA continued

WELSH JOINT EDUCATION COMMITTEE CURRICULUM BASED PRINCIPAL OFFICER, Scale 4 Salary: £14,025 - £15,111 (pay award pending) One year appointment, 1st January 1987 to 31st December 1987 (re-advertisement) Applications are invited for the post of Project Officer to the Wales Curriculum Base. The duties of the Project Officer reflect the aims of the Wales Curriculum Base, which are concerned with curriculum and staff development and network/information services particularly in areas such as pre-vocational education. This is a temporary appointment and secondment arrangements would be particularly welcome.

Further details and application forms are available from the Secretary, Welsh Joint Education Committee, 4th Floor, Arber Road, Cardiff, South Glam. CF1 3AT. Tel: (0353) 26111. Closing date: 25th September 1986. (12565) 480000

Application forms and further details are available from the Chief Education Officer (Education Support Grant), January 1987 to 31st August 1988.

Reimbursement of removal expenses in approved cases. Application forms and further details are available from the Chief Education Officer (Education Support Grant), January 1987 to 31st August 1988.

Applicants should be talented, have experience of using I.T. as an aid to learning and teaching and be prepared to undertake a salary to promote the development of the new technology in first, middle, secondary and special schools.

Further details and application forms from Chief Education Officer, Education Department, County Hall, Trowbridge, Wiltshire BA14 8JB (tel: Trowbridge (02214) 3641 ext. 2434), quoting the appropriate reference number. Closing date 1 October 1986.

Applicants should possess a degree and have teaching experience.

Salary: PO E/F £11,850 - £14,025 (+£213 outer fringe allowance) (1st July 1986 pay award pending).

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ADMINISTRATION - LEA continued

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Application forms and further details are available from the Chief Education Officer (Education Support Grant), January 1987 to 31st August 1988.

Reimbursement of removal expenses in approved cases. Application forms and further details are available from the Chief Education Officer (Education Support Grant), January 1987 to 31st August 1988.

Applicants should be talented, have experience of using I.T. as an aid to learning and teaching and be prepared to undertake a salary to promote the development of the new technology in first, middle, secondary and special schools.

Further details and application forms from Chief Education Officer, Education Department, County Hall, Trowbridge, Wiltshire BA14 8JB (tel: Trowbridge (02214) 3641 ext. 2434), quoting the appropriate reference number. Closing date 1 October 1986.

Applicants should possess a degree and have teaching experience.

Salary: PO E/F £11,850 - £14,025 (+£213 outer fringe allowance) (1st July 1986 pay award pending).

LEAG

LONDON & EAST ANGLIAN GROUP FOR GCSE EXAMINATIONS

AREA SUBJECT LEADERS

Applications are invited from experienced and enthusiastic teachers and advisers throughout the UK for appointment as subject specialists to provide links with locally-based clusters of schools and to lead the Phase 4 training sessions during the current academic year.

Details of duties and remunerations, together with an application form may be obtained from The LEAG Training Officer, The Lindens, 139 Lexden Road, Colchester CO3 3RL.

MUSEUM OF LONDON

ASSISTANT EDUCATION OFFICER

Applications are invited for the post of Assistant Education Officer at the Museum of London to assist the development of the overall programme of the Education Department.

Duties include teaching school and adult groups and the public studying the history of London through the Museums collections, liaising with and advising teachers over school visits, assistance with family holiday programmes and the planning and organisation of teachers and adults meetings.

Essential qualifications are at least two years school teaching experience and experience of Museum educational work, professionally or as a consumer.

Salary within the scale £8,352 - £13,446 (under review).

For further details, please write enclosing a large S.A.E. to the Personnel Officer, Museum of London, 150, London Wall, London EC2Y 5HN, to whom completed applications should be returned by 3rd October, 1986.

Project Officer

Share Training in Mental Handicap for Nurses and Social Work Staff

The Health Authorities of Bromley, Maudslows, Medway and Tunbridge Wells and the South East (Bromley) Certificate in Social Services Scheme are sponsoring a 3 year contract for a Project Officer to develop a shared academic and practice curriculum for qualifying training for nurses and social work staff working and with people with mental handicaps.

Salary range: £9,321 - £14,382 p.a. Inc.

Application forms and further details from: The Principal's Secretary, Bromley College of Technology, Rookery Lane, BROMLEY BR2 8HE. Tel: 01-482 6331. Closing date: 26.9.86.

INTERMEDIATE TREATMENT PROJECT WORKER

£8,900 - £9,697 p.a.

Are you experienced/qualified in social work, teaching or youth and community work?

We need a Project Worker to join our team of project workers based at Olive House Young People's Centre in Swindon. We provide a service for the community-based social work team in Eastern Wiltshire.

The person appointed will be involved in the Centre-based IT programmes at Olive House and developing a community focused provision in the large Park Estate in Swindon.

The worker will be expected to develop working partnerships with agencies both statutory and voluntary and with volunteers.

Applicants must be car drivers and a casual car user allowance is payable. Disturbance allowance up to £1,220, plus actual cost of removal, payable in appropriate cases.

For further information, contact Rosemary Miller, Intermediate Treatment Co-ordinator, Swindon City Council, 111, The Arcade, Swindon, Wiltshire, BA1 4RL. Tel: 04461 2872. Returnable by 26th September 1986 quoting ref. 89/27.

Educational Psychologists

WARWICKSHIRE COUNTY COUNCIL

EDUCATION DEPARTMENT

EDUCATIONAL PSYCHOLOGIST

Required as soon as possible to be based initially in the Warwick/Lutterworth area.

Applications are invited from qualified educational psychologists for appointment as soon as possible. Salary in the appropriate points of the appropriate scale £17,148. A substantial car user allowance payable.

Application form and further details from: The County Education Officer, 22 Northgate Street, Warwick CV34 4SR. Tel: Warwick (0926) 455331. Ext. 2553.

Closing date 22nd September, 1986.

WARWICKSHIRE IS AN EQUAL OPPORTUNITIES EMPLOYER.

ROYAL NATIONAL INSTITUTE FOR THE BLIND

SENIOR EDUCATION ADVISER

Applications are invited for the post of Senior Education Adviser, to lead a team of nine advisers who are all qualified teachers or visually handicapped children.

This is a key post in one of RNIB's major educational services. The successful candidate should hold a qualification in visual handicap and will have had considerable experience in working with visually handicapped children and young people. Management experience is sought, and the ability to get on well with people is essential.

The senior adviser will play a leading part in developing the support RNIB offers to children in integrated settings in mainstream schools and familiarity with LEA structures would therefore be helpful. The successful candidate will be expected to take responsibility for staff development within the advisory team and to assist in the design and implementation of in-service training programmes provided for specialist client groups outside RNIB.

An effective communicator is sought, who has the energy, enthusiasm and commitment to carry the advisory team forward at a time of considerable change in special and in mainstream education.

The post is based in RNIB's London Office but will also involve a considerable amount of travel throughout the U.K. including some overnight stays. A car is provided.

Salary Senior Teacher £12,459 to £18,440 inclusive of London Weighting.

Closing date for receipt of completed applications: Thursday, 2nd October, 1986.

Application forms and further details may be obtained from Mrs. C. Ross, Royal National Institute for the Blind, 224 Great Portland Street, London W1N 6AA.

UNIVERSITY OF CAMBRIDGE LOCAL EXAMINATIONS SYNDICATE

Subject Officer for Craft, Design and Technology

Applications are invited from graduates with relevant educational and administrative experience for the post of Subject Officer for Craft, Design and Technology subjects. Candidates should have a good honours degree, qualifications in the teaching of these subjects and experience in the development of syllabuses for the General Certificate of Secondary Education. A willingness to become involved in a broader range of subjects, particularly those of Computer Studies/Computer Science, would be an advantage.

The appointment is pensionable under the University Superannuation Scheme. The stipend is currently in the range of £9,880 to £12,780.

Applications (Three copies headed GDT Officer) should be sent with the names of three referees to the Secretary to the Syndicate so as to reach him not later than 26 September 1986. Further details of the post are available from the same address.

The Secretary, University of Cambridge Local Examinations Syndicate, 1 Hills Road, Cambridge CB1 2EU.

EDUCATION DEPARTMENT

Principal Educational Psychologist

Salary within Southbury H.T. Group 9 £18,075 - £19,587, plus £1,110 London Allowance.

Applications are invited for the post of Principal Educational Psychologist to lead a successful Schools' Psychological Service which comprises two Senior Psychologists, five Psychologists, a team of eight specialist teachers for remedial work and for the support of children with behavioural problems, and secretarial staff. The service is accommodated in purpose-built well-equipped premises which also currently house the staff of the Authority's Portage Service. The ratio of Psychologists to the school population is generous.

The service works in close association with a Child and Family Centre which includes a consultant psychiatrist and psychiatric social workers.

Applicants should have an Honours Degree in Psychology, teaching experience and post-graduate training and be sufficiently experienced to assume responsibility for the efficiency and further development of the Schools' Psychological Service, particularly in the light of the Education Act 1981.

Travelling and subsistence expenses payable. Assistance with removal expenses in approved cases.

Further particulars and forms of application may be obtained from the Chief Education Officer, Town Hall, Barking, Essex, to whom they should be returned. (Please enclose foolscap s.a.e.) (Ref. JM/CL)

Prospective applicants are encouraged to arrange an informal visit by telephoning 01-593 7577.

Closing date: 28th September, 1986.

London Borough of BARKING and DAGENHAM

an equal opportunity employer

UNIVERSITY OF CAMBRIDGE LOCAL EXAMINATIONS SYNDICATE

INTERNATIONAL GENERAL CERTIFICATE OF SECONDARY EDUCATION (IGCSE)

The University of Cambridge Local Examinations Syndicate is appointment Chief Examiners for the IGCSE, a new international examination to be offered for the first time in 1988.

Applicants should be under 60, with at least 5 years of recent teaching experience and at least 3 years of examining experience at a senior level.

The duties of Chief Examiners include the setting of question papers, the preparation of marketing schemes and the supervision of team leaders and examiners.

Applications are invited in:

Agriculture	Geography
Art and Design	German
Biology	History
Business Studies	Italian
CDT (Design and Realisation)	Latin
CDT (Design and Technology)	Literature (English, French, Spanish)
CDT (Design and Communication)	Mathematics
Chemistry	Music
Child Development	Physics
Computer Studies	Religious Studies
Economics	Science
English as a First Language	Sociology
English as a Second Language	Social Studies
Food Science	Spanish
French	Spanish as a First Language
French as a First Language	Textiles

Further details and application forms may be obtained from The Secretary, University of Cambridge Local Examinations Syndicate, Syndicate Buildings, 1 Hills Road, Cambridge CB1 2EU.

UNIVERSITY OF LONDON SCHOOL EXAMINATIONS BOARD

General Certificate of Education Examination

The Board invites application for addition to the list of Assistant Examiners:

ADVANCED LEVEL

ANCIENT HISTORY (Greek History and Roman History)
ECONOMICS - ENGLISH LANGUAGE STUDIES
ENGLISH LITERATURE - GEOGRAPHY (SCP)
HOME ECONOMICS - JAPANESE - MATHEMATICS
MODERN GREEK - NUFFIELD CHEMISTRY - PHYSICS
RELIGIOUS STUDIES (Philosophy of Religion and World Faiths)

ORDINARY LEVEL

CHEMISTRY - HUMAN BIOLOGY - JAPANESE - MODERN GREEK

Applicants should be graduates or hold appropriate qualifications and should be under 65 with five years recent teaching experience. Application forms and further details may be obtained from The Secretary, University of London School Examinations Board, Stewart House (Room 215), 32 Russell Square, London WC1B 6DN. Applicants should enclose a self-addressed foolscap envelope. Completed application forms should be returned by 3 October 1986. Previous applicants for any of the posts need not re-apply: their application will be considered with any new ones received.

EXAMINERS

THE ASSOCIATED EXAMINING BOARD

The Board invites applications for the post of VISITING EXAMINER for IGCSE (118) PRACTICAL EXAMINATION at ORDINARY LEVEL and IGCSE (174) PRACTICAL EXAMINATION at ORDINARY (ALTERNATIVE) LEVEL for the June 1987 examination. Duties to commence at once.

Applicants should have a degree or equivalent qualification in a relevant subject and a minimum of four years recent relevant teaching experience and some experience of examining.

Further information and application forms may be obtained from The Secretary General (A31), The Associated Examining Board, Stag Hill House, Guildford, Surrey GU2 5XJ, to whom completed forms should be returned no later than 1st October, 1986.

Previous applicants need not re-apply. (12011) 600000

MIDLAND EXAMINING GROUP

CHIEF EXAMINER POSTS

Chief Examiners for GCSE Examinations in 1988 are required in the subjects/syllabuses listed below. Applications forms and further details are obtainable from the Examiners Unit above immediately before the relevant list of subjects. The closing date for receipt of applications is Friday, 26th September, 1986.

Accounting	Geography Syllabus A
Biology Syllabus A	Geography Syllabus B
Business Studies	Geography Syllabus C
Chemistry	Geography Syllabus D
Design	Geography Syllabus E
English Syllabus A	Geography Syllabus F
English Syllabus B	Geography Syllabus G
English Syllabus C	Geography Syllabus H
English Syllabus D	Geography Syllabus I
English Syllabus E	Geography Syllabus J
English Syllabus F	Geography Syllabus K
English Syllabus G	Geography Syllabus L
English Syllabus H	Geography Syllabus M
English Syllabus I	Geography Syllabus N
English Syllabus J	Geography Syllabus O
English Syllabus K	Geography Syllabus P
English Syllabus L	Geography Syllabus Q
English Syllabus M	Geography Syllabus R
English Syllabus N	Geography Syllabus S
English Syllabus O	Geography Syllabus T
English Syllabus P	Geography Syllabus U
English Syllabus Q	Geography Syllabus V
English Syllabus R	Geography Syllabus W
English Syllabus S	Geography Syllabus X
English Syllabus T	Geography Syllabus Y
English Syllabus U	Geography Syllabus Z

Further details and application forms may be obtained from The Secretary, Midland Examinations Board, 100, The Quadrant, Nottingham NG1 1JF.

UNIVERSITY OF CAMBRIDGE LOCAL EXAMINATIONS SYNDICATE

INTERNATIONAL GENERAL CERTIFICATE OF SECONDARY EDUCATION (IGCSE)

The University of Cambridge Local Examinations Syndicate is appointment Chief Examiners for the IGCSE, a new international examination to be offered for the first time in 1988.

Applicants should be under 60, with at least 5 years of recent teaching experience and at least 3 years of examining experience at a senior level.

The duties of Chief Examiners include the setting of question papers, the preparation of marketing schemes and the supervision of team leaders and examiners.

Applications are invited in:

Agriculture	Geography
Art and Design	German
Biology	History
Business Studies	Italian
CDT (Design and Realisation)	Latin
CDT (Design and Technology)	Literature (English, French, Spanish)
CDT (Design and Communication)	Mathematics
Chemistry	Music
Child Development	Physics
Computer Studies	Religious Studies
Economics	Science
English as a First Language	Sociology
English as a Second Language	Social Studies
Food Science	Spanish
French	Spanish as a First Language
French as a First Language	Textiles

Further details and application forms may be obtained from The Secretary, University of Cambridge Local Examinations Syndicate, Syndicate Buildings, 1 Hills Road, Cambridge CB1 2EU.

UNIVERSITY OF LONDON SCHOOL EXAMINATIONS BOARD

GENERAL CERTIFICATE OF EDUCATION EXAMINATION

The Board invites applications for the following appointments:

CHIEF EXAMINERS

ADVANCED LEVEL FOR JUNE 1989

ART (Painting and Drawing)
ART (Display and Interior Design)
ART (Graphics)
FRENCH ORAL
GOVERNMENT AND POLITICAL STUDIES
HISTORY
HOME ECONOMICS
ORDINARY LEVEL

BIOLOGY (Home and Overseas) for January/June 1987 and Overseas for 1988) MODERN GREEK for JANUARY 1987

MODERATORS

GRAPHICAL COMMUNICATION FROM 1 AUGUST 1987

ARABIC
HEBREW (Classical and Modern) WITH IMMEDIATE EFFECT

Applicants should be graduates or hold appropriate qualifications and should be under 65 with five years recent teaching experience. Examining experience is essential. Chief Examiners' duties include setting question papers, advising on the award of grades and may include the supervision of a team of examiners. For application forms and further details write to The Secretary, University of London School Examinations Board, Stewart House (Room 215), 32 Russell Square, London WC1B 6DN. Applicants should enclose a self-addressed foolscap envelope. Completed application forms should be returned by 3 October 1986. Previous applicants for any of the posts need not re-apply: their application will be considered with any new ones received.

Miscellaneous

PERSON INVOLVED IN CHILD CARE OR NURSERY EDUCATION

Persons involved in child care or nursery education are sought for interesting work in the private field. Previous experience of educational work is not essential. Please write to: Mrs. J. Collins, 24, Chesham Street, London SW1W 8JL. Tel: 01-834 5400, ext. 267.

A SALES CAREER WITH THE LIFE OF CAMBRIA

The Life of Cambria offering an exciting career opportunity in the sales of high quality, hand-crafted, leather goods. Full training and development programme. Salary commensurate with experience. Please write to: The Life of Cambria, 10, The Quadrant, Nottingham NG1 1JF. Tel: 01-593 7577.

LONDON AND EAST ANGLIAN GROUP FOR THE GCSE EXAMINATION

East Anglian Examinations Board

London Regional Examinating Board

School Examinations Board

JOINT O-LEVEL/CSE AND GCSE EXAMINATIONS

Applications are invited for the following appointments for the June 1987 Joint O-level/CSE and subsequent GCSE examinations:

ASSISTANT EXAMINERS and VISITING ASSESSORS

HOME ECONOMICS: FOOD
HOME ECONOMICS: HOME AND FAMILY ASSESSORS
CHEMISTRY, SYLLABUSES A and B
DANCE
GEOLOGY
HISTORY, SYLLABUSES A, B and C
ASSISTANT EXAMINERS
BIOLOGY
CHEMISTRY
ECONOMICS
HISTORY, SYLLABUSES A, B and C

Applicants should be graduates or hold appropriate qualifications and should be under 65 with three years recent teaching experience. Application forms and further details may be obtained from The Secretary, University of London School Examinations Board, Stewart House (Room 215), 32 Russell Square, London WC1B 6DN. Applicants should enclose a self-addressed foolscap envelope. Completed application forms should be returned by 17 October 1986.

LONDON/BIRMINGHAM MANCHESTER

Representatives required in the above areas to demonstrate wooden educational equipment in Primary Schools. No previous educational experience necessary but sound educational background required.

We are looking for a teacher able to organise the revision of 25 young French people in families with young people of the same age.

Duties: July and 25th, 1987. From 2nd - 15th July, the young French children would attend school with their English friends and from 16th - 25th July they would be at least three hours in the company of their French friends to enable them to revise for their GCSE exams.

Please write with details of availability to: SILEC, 33, Church Street, Weybridge, Surrey TW20 1JH. Tel: 01843 81111. 660000

THE ASSOCIATED EXAMINING BOARD

The Board invites applications for the post of

CO-CHIEF EXAMINER

for COMPUTER SCIENCE (643) at ADVANCED LEVEL

for the June, 1988 examinations, to be responsible for Paper 1. Duties to commence Spring, 1987.

Applicants should have a degree or equivalent qualification in a relevant subject, a minimum of four years recent relevant teaching experience and experience of examining.

Further information and application forms may be obtained from The Secretary General (AG), The Associated Examining Board, Stag Hill House, Guildford, Surrey, GU2 5XJ, to whom completed forms should be returned no later than 31st October, 1986.

The Associated Examining Board

AEB

ARE YOU AS KEEN TO TEACH AS OUR TECHNICIANS ARE TO LEARN?

We hope you're one of those teachers who thoroughly enjoy teaching. Who don't mind letting enthusiasm show.

Because we have some very keen and responsible pupils for you to train.

Our pupils are the RAF's technicians of tomorrow. Some of the brightest and most highly motivated young men and women in Britain with a voracious appetite for learning.

But without dedicated teaching their careers wouldn't get off the ground. And without our technicians neither would the RAF.

Hence the importance of your role as a Royal Air Force Education Officer.

What's more, we'll give you every facility to fulfil that role effectively.

You see, we believe in "hands on" teaching. Giving each pupil the chance to get to grips with the machine. Be it an oscilloscope or a jet engine, he'll learn more, quicker, if he's working in a small group.

But the instruction of the trainee technicians is only part of the job.

There are also numerous opportunities throughout the RAF for additional responsibilities, such as keeping all ranks abreast of the latest in electronics, computer technology, radar, electrical and aeronautical engineering.

Advances which can only be applied effectively if you're one of our technicians.

WHAT NOW?

You don't need to be a qualified teacher because if you're not already experienced, we'd teach you the art of teaching.

But you should have a degree in engineering, physics, mathematics or a computing discipline or you may apply if you have an HNC or TECCH in an engineering subject, together with a GCE 'O' level in English Language (or equivalent).

Alternatively, if you do have a teaching qualification it must be with mathematics or physics. We also have vacancies for linguists - especially German speaking.

You can apply for a 4 to 6-year gratuity-paying Short Service Commission or indeed, a commission for a longer period. Age on entry up to 39.

To find out more, call in at any RAF Careers Information Office (in the phone book under Royal Air Force) or write to Group Captain Paul Terrett, OBE, at (TC) Officer Careers (802/08/09), Stanmore HA7 4PZ, giving your date of birth and your present and/or intended qualifications.

RAFOFFICER

EDUCATION & TRAINING

